Dual Thyristor Modules

MTC26 MTA26 MTK26 MTX26 MT26

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

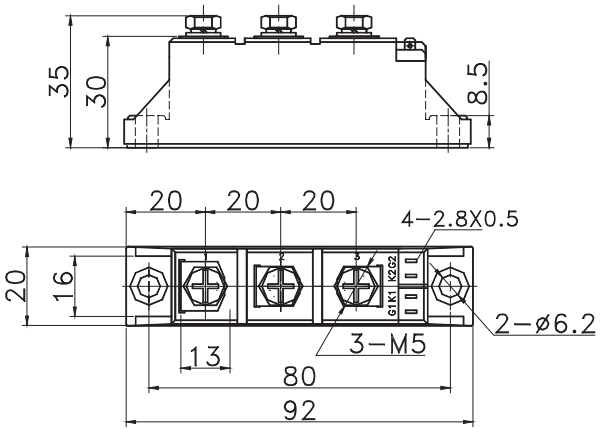
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	26A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	0.55KA
I^2t	1.5A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			26	A
$I_{T(RMS)}$	RMS on-state current		125			41	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			8	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			0.55	KA
I^2t	I^2T for fusing coordination					1.50	A^{2}s*10^3
V_{TO}	Threshold voltage		125			0.85	V
r_T	On-state slop resistance					9.68	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=80A	25			1.69	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			50	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		100	mA
V_{GT}	Gate trigger voltage			0.8		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125	0.2		0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.950	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.2	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				2.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				115		g

Outline:



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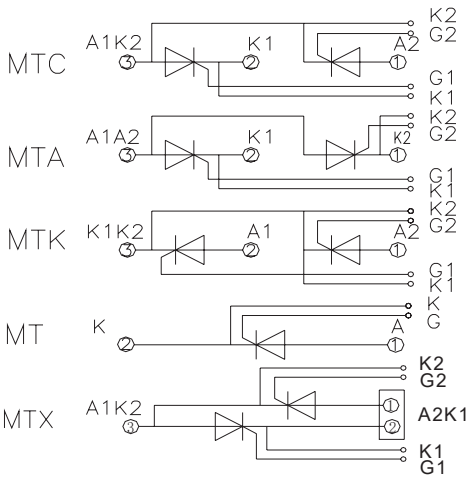

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Dual Thyristor Modules

MTC40 MTA40 MTK40 MTX40 MT40

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

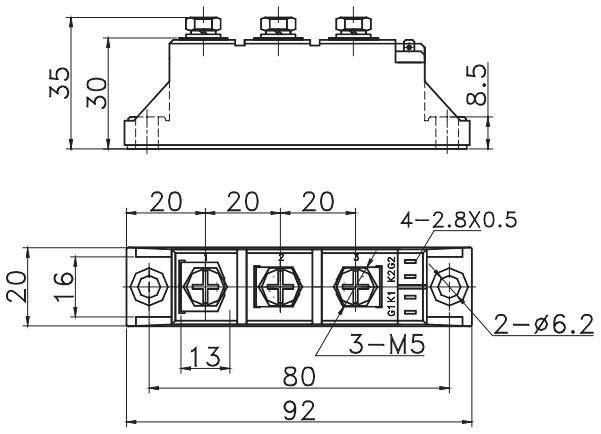
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	40A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	1.0KA
I^2t	5.0A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			40	A
$I_{T(RMS)}$	RMS on-state current		125			63	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			8	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			1.00	KA
I^2t	I^2T for fusing coordination					5.0	A^2s*10^3
V_{TO}	Threshold voltage		125			0.85	V
r_T	On-state slop resistance					5.57	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=120A	25			1.60	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			50	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		100	mA
V_{GT}	Gate trigger voltage			0.8		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.650	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.2	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				4		N·m
	Mounting torque(M6)				6		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				160		g

Outline:



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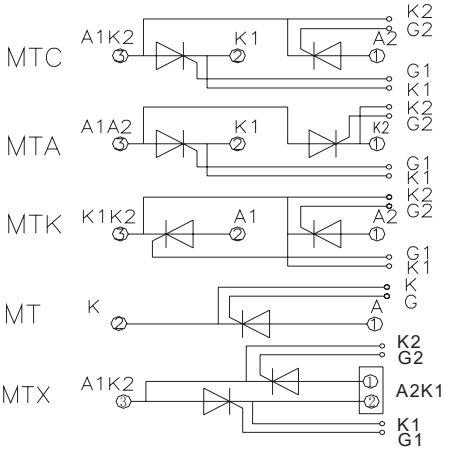

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Dual Thyristor Modules

MTC55 MTA55 MTK55 MTX55 MT55

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

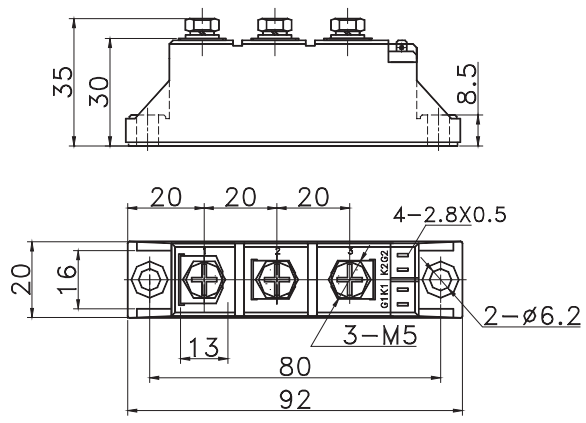
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	55A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	1.25KA
I^2t	7.8A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			55	A
$I_{T(RMS)}$	RMS on-state current		125			86	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			8	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			1.25	KA
I^2t	I^2T for fusing coordination					7.80	A^{2}s*10^3
V_{TO}	Threshold voltage		125			0.85	V
r_T	On-state slop resistance					3.47	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=170A	25			1.50	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			50	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		100	mA
V_{GT}	Gate trigger voltage			0.8		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.530	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.2	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				2.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				100		g

Outline:



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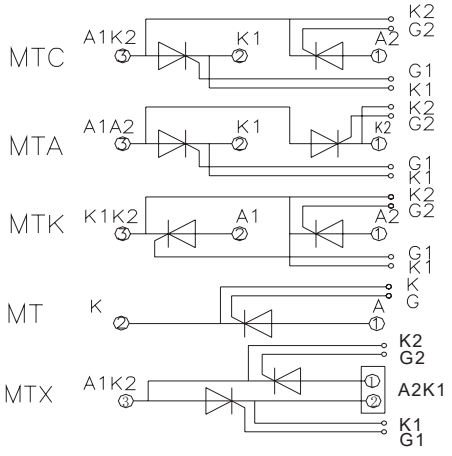

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Dual Thyristor Modules

MTC55h MTA55h MTK55h MTX55h MT55h

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

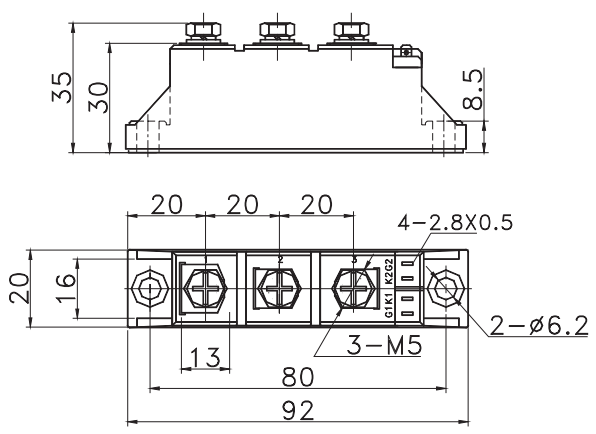
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	55A
V_{DRM} / V_{RRM}	1900~3000V
I_{TSM}	1.15KA
I^2t	6.6A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			55	A
$I_{T(RMS)}$	RMS on-state current		125			86	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DSM}&V_{RSM}= V_{DRM}&V_{RRM}+200V respectively	125	1900		3000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			10	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			1.15	KA
I^2t	I^2T for fusing coordination					6.60	A^2s*10^3
V_{TO}	Threshold voltage		125			0.90	V
r_T	On-state slop resistance					5.85	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=120A	25			1.96	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			50	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		150	mA
V_{GT}	Gate trigger voltage			0.8		3.0	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.640	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.2	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3600			V
F_m	Thermal connection torque(M5)				2.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				115		g

Outline:



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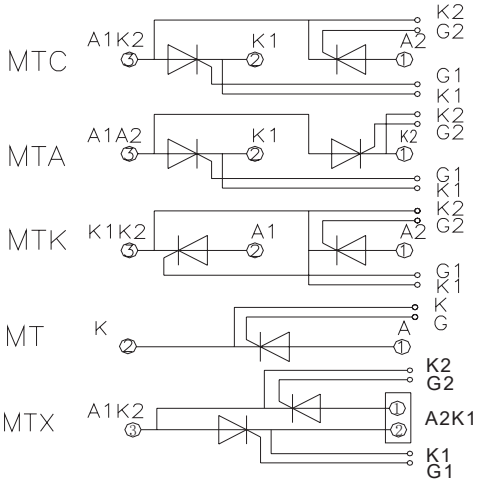

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Dual Thyristor Modules

MTC7O MTA70 MTK70 MTX70 MT70

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

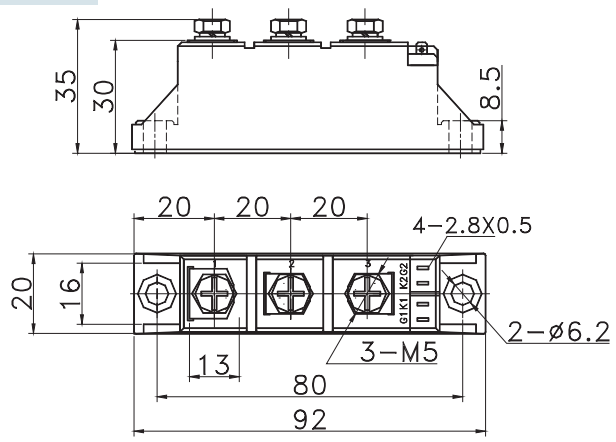
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	70A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	1.60KA
I^2t	13A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			70	A
$I_{T(RMS)}$	RMS on-state current		125			110	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			10	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			1.60	KA
I^2t	I^2T for fusing coordination					13.0	A^{2}s*10^3
V_{TO}	Threshold voltage		125			0.8	V
r_T	On-state slop resistance					2.64	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=210A	25			1.48	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			50	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		100	mA
V_{GT}	Gate trigger voltage			0.8		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.410	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.2	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				2.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				115		g

Outline:



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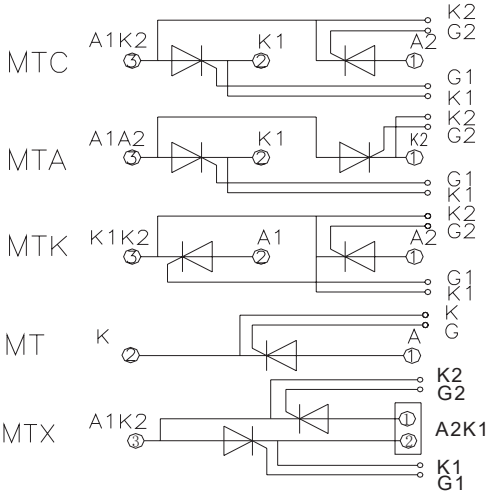

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Dual Thyristor Modules

MTC70h MTA70h MTK70h MTX70h MT70h

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

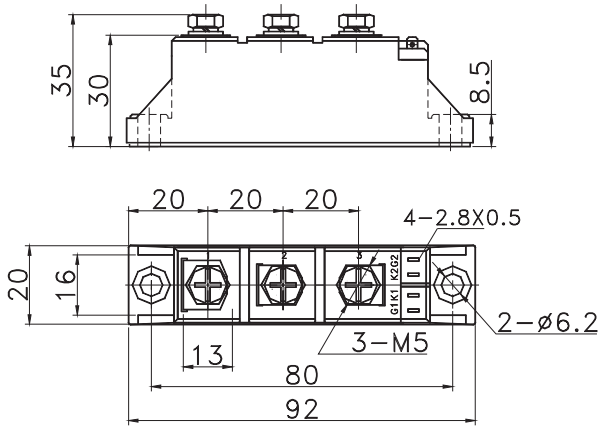
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	70A
V_{DRM} / V_{RRM}	1900~3000V
I_{TSM}	1.60KA
I^2t	13A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			70	A
$I_{T(RMS)}$	RMS on-state current		125			110	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	1900		3000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			12	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			1.60	KA
I^2t	I^2T for fusing coordination					13.0	A^{2}s*10^3
V_{TO}	Threshold voltage		125			0.90	V
r_T	On-state slop resistance					4.64	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=210A	25			1.93	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			50	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		150	mA
V_{GT}	Gate trigger voltage			0.8		3.0	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.450	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.2	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3600			V
F_m	Thermal connection torque(M5)				2.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				115		g

Outline:



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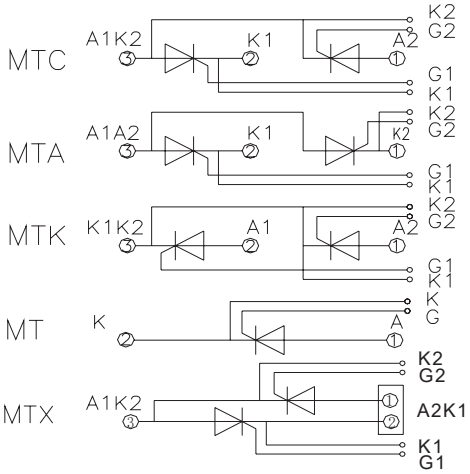

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Dual Thyristor Modules

MTC90 MTA90 MTK90 MTX90 MT90

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

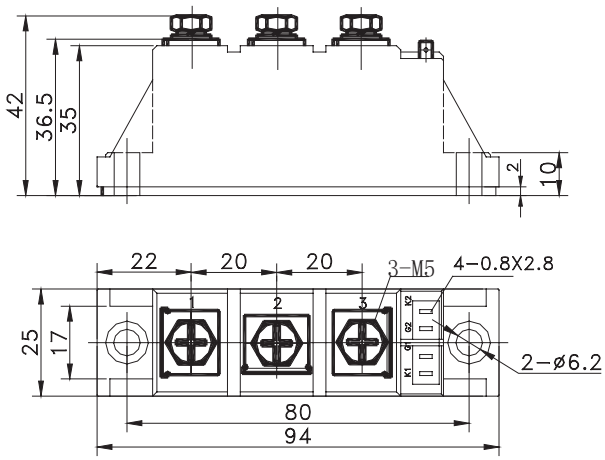
Typical Applications:

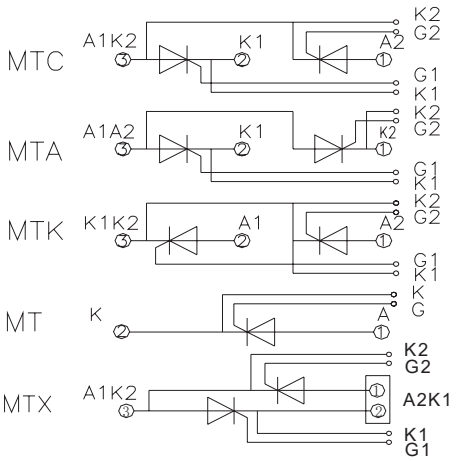
- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	90A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	2.0A × 10^3
I^2t	20.4A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			90	A
$I_{T(RMS)}$	RMS on-state current		125			141	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1600	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			10	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			2	KA
I^2t	I^2T for fusing coordination					20.4	A^2s*10^3
V_{TO}	Threshold voltage		125			0.8	V
r_T	On-state slop resistance					3.01	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=270A	25			1.7	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		100	mA
V_{GT}	Gate trigger voltage			1		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.28	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.15	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				4		N·m
	Mounting torque(M6)				6		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				160		g

Outline:





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Dual Thyristor Modules

MTC90h MTA90h MTK90h MTX90h MT90h

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

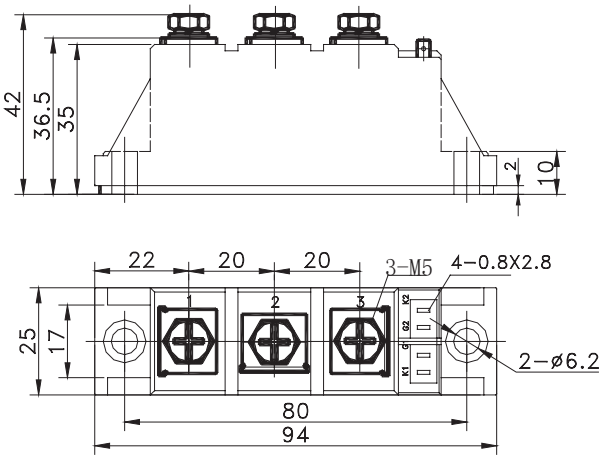
Typical Applications:

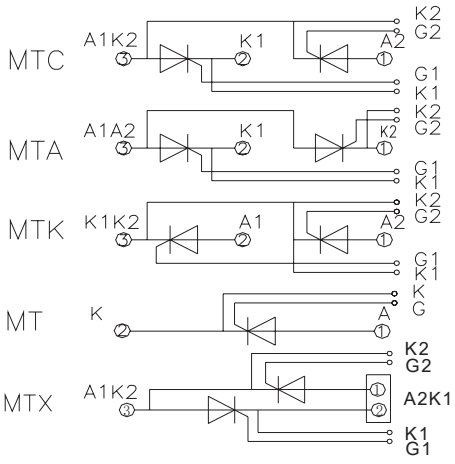
- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	90A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	2.0A × 10^3
I^2t	20.4A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			90	A
$I_{T(RMS)}$	RMS on-state current		125			141	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1600	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			10	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			2	KA
I^2t	I^2T for fusing coordination					20.4	A^2s*10^3
V_{TO}	Threshold voltage		125			0.8	V
r_T	On-state slop resistance					3.01	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=270A	25			1.7	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		100	mA
V_{GT}	Gate trigger voltage			1		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.28	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.15	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				4		N·m
	Mounting torque(M6)				6		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				160		g

Outline:





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Dual Thyristor Modules

MTC110 MTA110 MTK110 MTX110 MT110

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

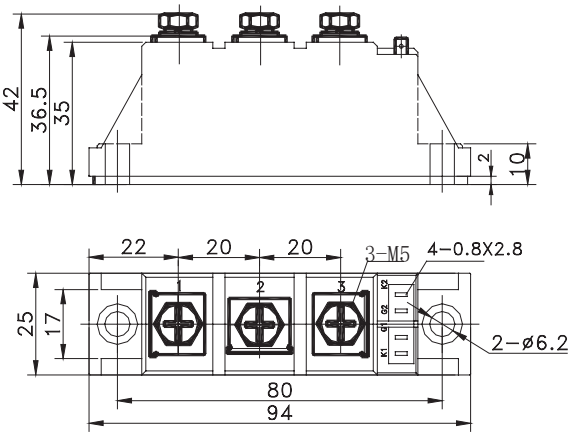
Typical Applications:

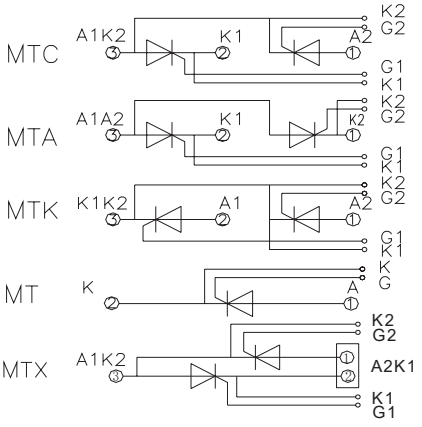
- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	110A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	2.4A × 10^3
I^2t	29A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			110	A
$I_{T(RMS)}$	RMS on-state current		125			173	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			12	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			2.40	KA
I^2t	I^2T for fusing coordination					29	A^2s*10^3
V_{TO}	Threshold voltage		125			0.8	V
r_T	On-state slop resistance					2.29	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=330A	25			1.69	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		100	mA
V_{GT}	Gate trigger voltage			1		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.25	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.15	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				4		N·m
	Mounting torque(M6)				6		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				160		g

Outline:





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Dual Thyristor Modules

MTC110h MTA110h MTK110h MTX110h MT110h

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

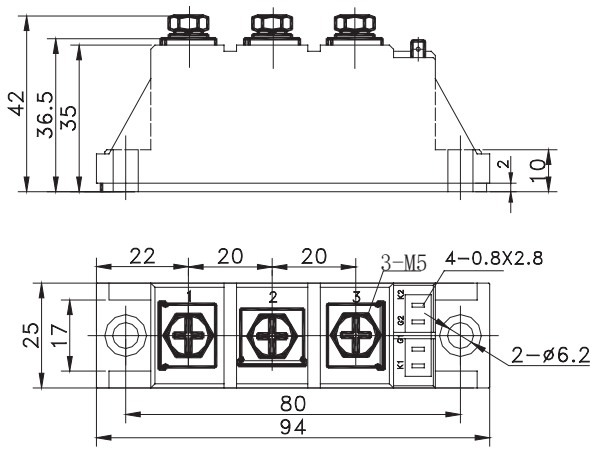
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	110A
V_{DRM} / V_{RRM}	1900~3000V
I_{TSM}	2.4KA
I^2t	29A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			110	A
$I_{T(RMS)}$	RMS on-state current		125			173	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DSM}&V_{RSM}= V_{DRM}&V_{RRM}+200V respectively	125	1900		3000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			20	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			2.4	KA
I^2t	I^2T for fusing coordination					29	A^2s*10^3
V_{TO}	Threshold voltage		125			0.90	V
r_T	On-state slop resistance					2.61	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=330A	25			1.90	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		150	mA
V_{GT}	Gate trigger voltage			1.0		3.0	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.250	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.15	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3600			V
F_m	Thermal connection torque(M5)				2.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				160		g

Outline:



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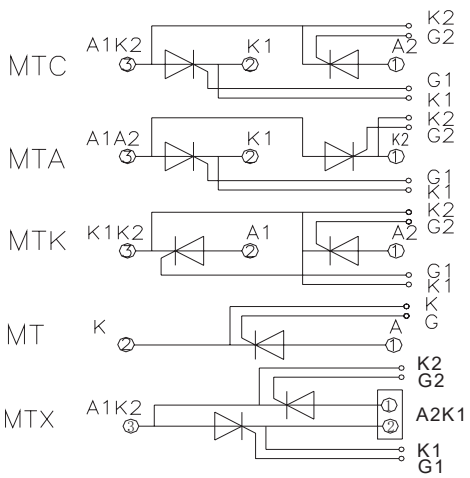

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Dual Thyristor Modules

MTC135 MTA135 MTK135 MTX135 MT135

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

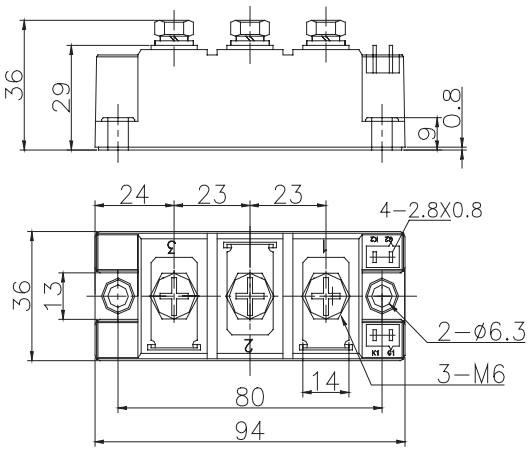
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	135A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	3.8KA
I^2t	72A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			135	A
$I_{T(RMS)}$	RMS on-state current		125			212	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DSM}&V_{RSM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			15	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			3.80	KA
I^2t	I^2T for fusing coordination					72	A^{2}s*10^3
V_{TO}	Threshold voltage		125			0.8	V
r_T	On-state slop resistance					2.85	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=410A	25			1.75	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		100	mA
V_{GT}	Gate trigger voltage			1		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.200	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.08	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				3.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				320		g

Outline:



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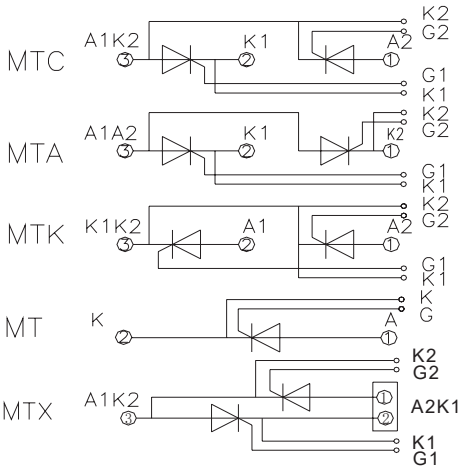

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Dual Thyristor Modules

MTC135h MTA135h MTK135h MTX135h MT135h

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

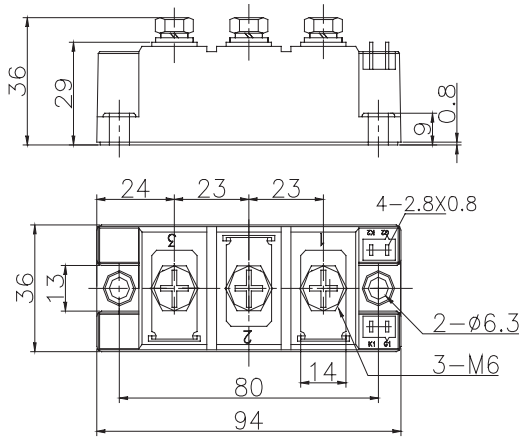
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	135A
V_{DRM} / V_{RRM}	1900~3000V
I_{TSM}	3.8KA
I^2t	72A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			135	A
$I_{T(RMS)}$	RMS on-state current		125			212	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	1900		3000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			22	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			3.80	KA
I^2t	I^2T for fusing coordination					72	A^2s*10^3
V_{TO}	Threshold voltage		125			0.90	V
r_T	On-state slop resistance					2.26	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=405A	25			1.96	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		150	mA
V_{GT}	Gate trigger voltage			1.0		3.0	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.200	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.08	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3600			V
F_m	Thermal connection torque(M5)				4		N·m
	Mounting torque(M6)				6		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				160		g

Outline:



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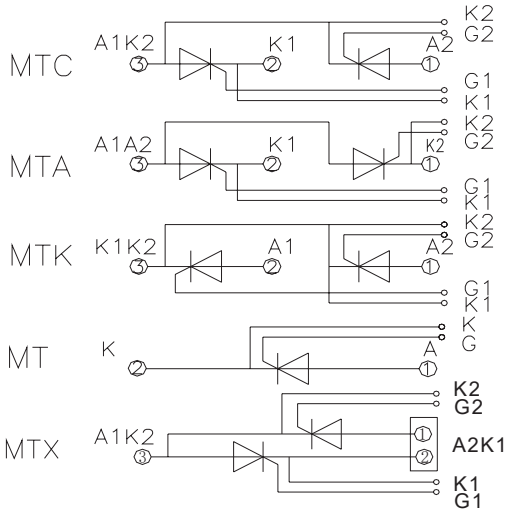

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Dual Thyristor Modules

MTC160 MTA160 MTK160 MTX160 MT160

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

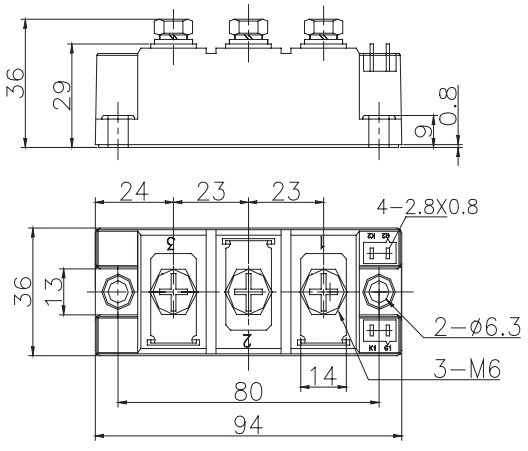
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	160A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	5.4KA
I^2t	146A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			160	A
$I_{T(RMS)}$	RMS on-state current		125			251	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			20	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			5.40	KA
I^2t	I^2T for fusing coordination					146	A^2s*10^3
V_{TO}	Threshold voltage		125			0.8	V
r_T	On-state slop resistance					1.69	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=480A	25			1.7	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		150	mA
V_{GT}	Gate trigger voltage			1		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.170	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.08	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				3.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				320		g

Outline:



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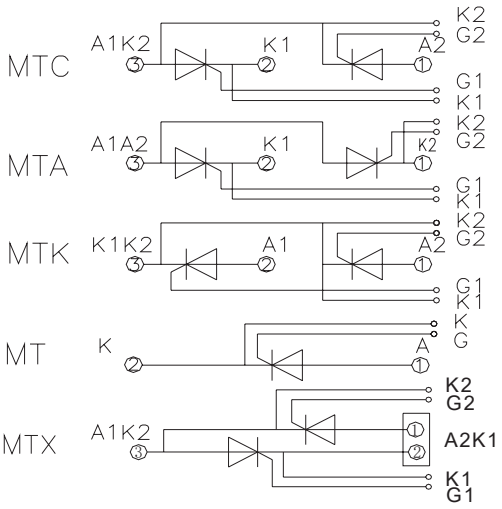

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Dual Thyristor Modules

MTC160h MTA160h MTK160h MTX160h MT160h

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

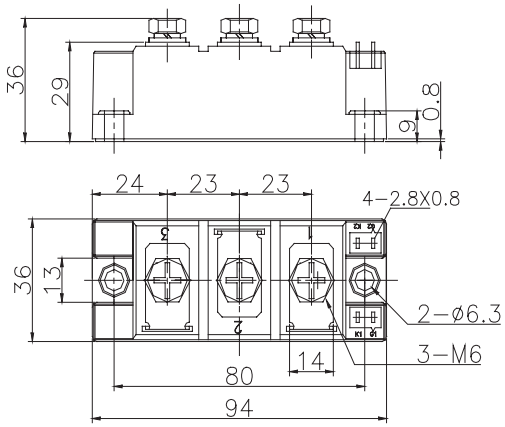
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	160A
V_{DRM} / V_{RRM}	1900~3000V
I_{TSM}	5.4KA
I^2t	146A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			160	A
$I_{T(RMS)}$	RMS on-state current		125			251	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	1900		3000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			25	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			5.40	KA
I^2t	I^2T for fusing coordination					146	A^2s*10^3
V_{TO}	Threshold voltage		125			0.90	V
r_T	On-state slop resistance					1.79	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=480A	25			1.90	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		150	mA
V_{GT}	Gate trigger voltage			1.0		3.0	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.170	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.08	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3600			V
F_m	Thermal connection torque(M5)				3.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				320		g

Outline:



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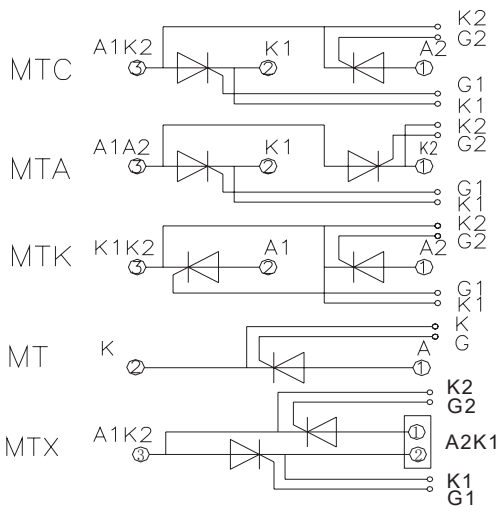

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Dual Thyristor Modules

MTC182 MTA182 MTK182 MTX182 MT182

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

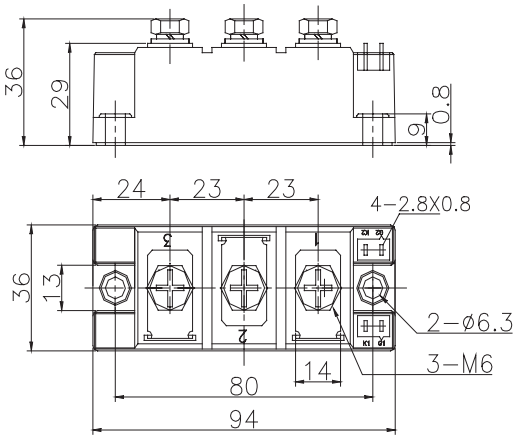
Typical Applications:

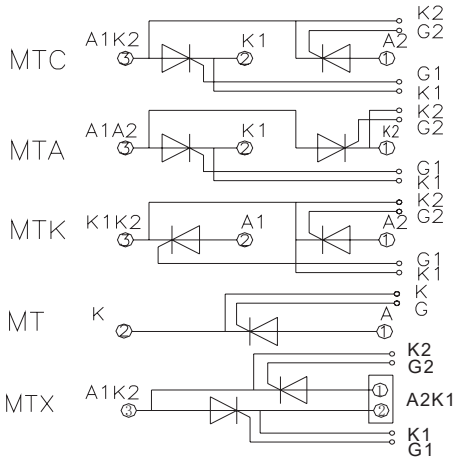
- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	182A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	5.8A × 10^3
I^2t	168A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			182	A
$I_{T(RMS)}$	RMS on-state current		125			286	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			25	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			5.8	KA
I^2t	I^2T for fusing coordination					168	A^2s*10^3
V_{TO}	Threshold voltage		125			0.8	V
r_T	On-state slop resistance					1.26	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=550A	25			1.62	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		150	mA
V_{GT}	Gate trigger voltage			1		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.16	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.08	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				4		N·m
	Mounting torque(M6)				6		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				320		g

Outline:





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Dual Thyristor Modules

MTC182h MTA182h MTK182h MTX182h MT182h

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

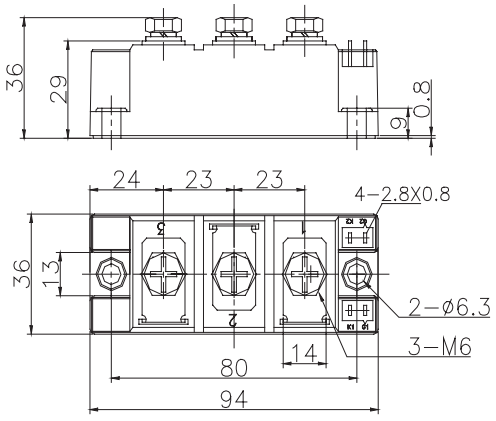
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	182A
V_{DRM} / V_{RRM}	1900~3000V
I_{TSM}	5.8KA
I^2t	168A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			182	A
$I_{T(RMS)}$	RMS on-state current		125			286	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DSM}&V_{RSM}= V_{DRM}&V_{RRM}+200V respectively	125	1900		3000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			30	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			5.80	KA
I^2t	I^2T for fusing coordination					168	A^2s*10^3
V_{TO}	Threshold voltage		125			0.90	V
r_T	On-state slop resistance					1.40	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=270A	25			1.80	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		150	mA
V_{GT}	Gate trigger voltage			1.0		3.0	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.160	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.08	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3600			V
F_m	Thermal connection torque(M5)				3.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				320		g

Outline:



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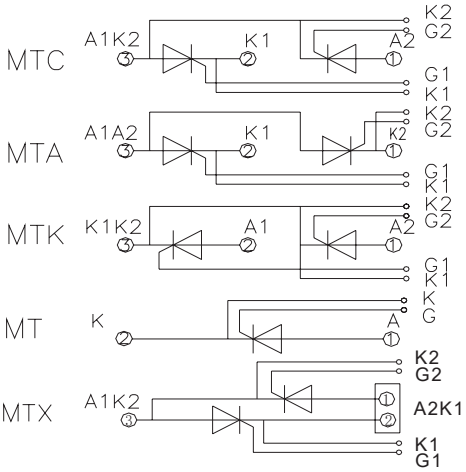

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Dual Thyristor Modules

MTC200 MTA200 MTK200 MTX200 MT200

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

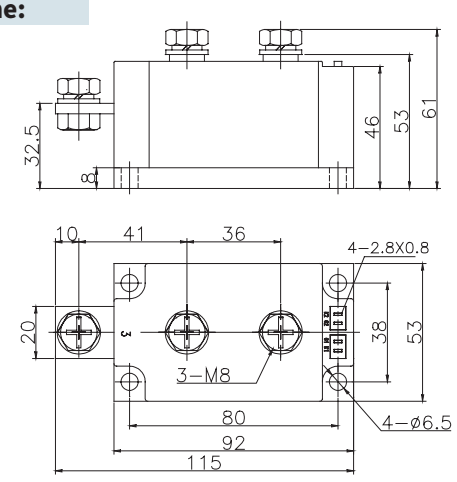
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	200A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	7.2KA
I^2t	259A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			200	A
$I_{T(RMS)}$	RMS on-state current		125			314	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DSM}&V_{RSM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			30	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			7.20	KA
I^2t	I^2T for fusing coordination					259	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					1.27	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=600A	25			1.65	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		180	mA
V_{GT}	Gate trigger voltage			1.0		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125	0.2		0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.140	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.04	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				4.5		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				930		g

Outline:



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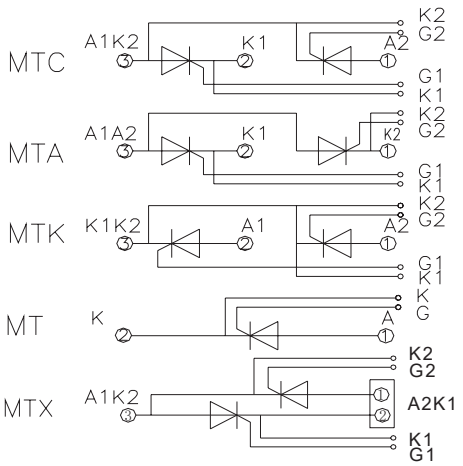

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Dual Thyristor Modules

MTC200h MTA200h MTK200h MTX200h MT200h

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

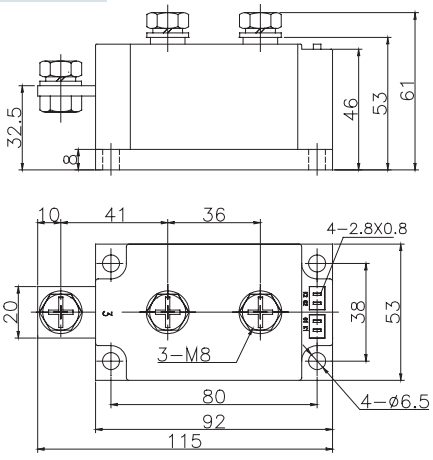
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	200A
V_{DRM} / V_{RRM}	1900~3000V
I_{TSM}	7.2KA
I^2t	259A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			200	A
$I_{T(RMS)}$	RMS on-state current		125			314	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DSM}&V_{RSM}= V_{DRM}&V_{RRM}+200V respectively	125	1900		3000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			35	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			7.20	KA
I^2t	I^2T for fusing coordination					259	A^2s*10^3
V_{TO}	Threshold voltage		125			0.90	V
r_T	On-state slop resistance					1.43	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=600A	25			1.90	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		180	mA
V_{GT}	Gate trigger voltage			1.0		3.0	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.140	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.04	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3600			V
F_m	Thermal connection torque(M5)				4.5		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				930		g

Outline:



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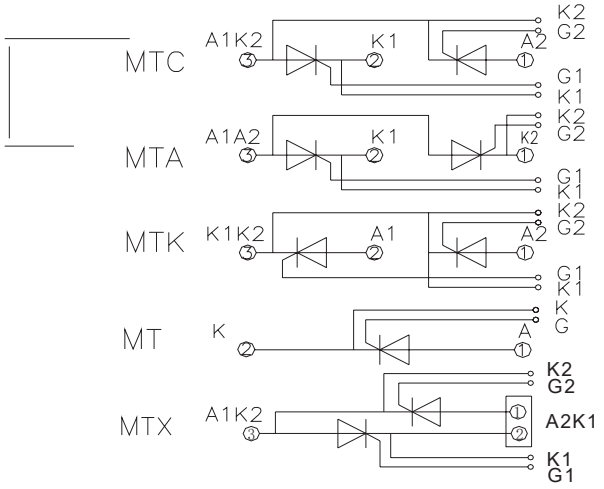

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Dual Thyristor Modules

MTC250 MTA250 MTK250 MTX250 MT250

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

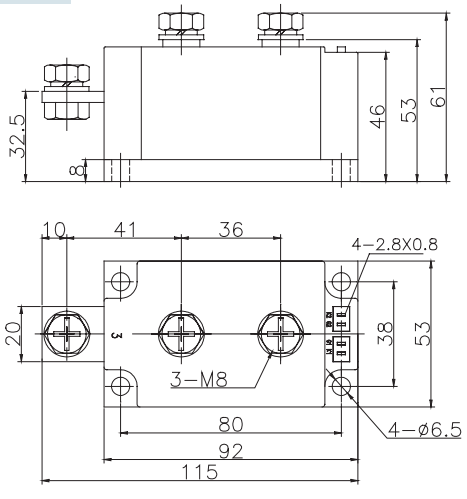
Typical Applications:

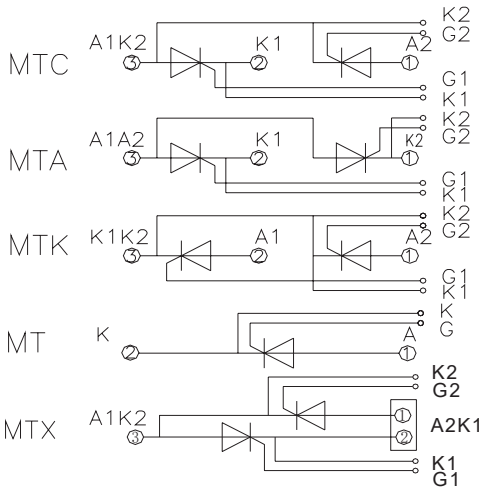
- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	250A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	8.5A× 10^3
I^2t	360A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			250	A
$I_{T(RMS)}$	RMS on-state current		125			390	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			8.5	KA
I^2t	I^2T for fusing coordination	V_R=60%V_{RRM}				360	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.85	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=750A	25			1.57	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		180	mA
V_{GT}	Gate trigger voltage			1		2.5	V
I_H	Holding current			20		150	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.12	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.04	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				12		N·m
	Mounting torque(M6)				6		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				860		g

Outline:





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Dual Thyristor Modules

MTC250h MTA250h MTK250h MTX250h MT250h

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

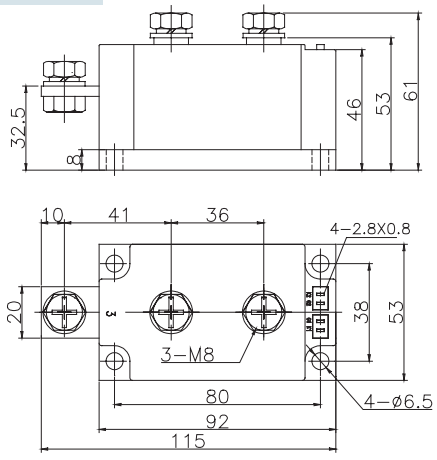
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	250A
V_{DRM} / V_{RRM}	1900~3000V
I_{TSM}	8.5A × 10^3
I^2t	361A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			250	A
$I_{T(RMS)}$	RMS on-state current		125			393	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	1900		3000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			8.50	KA
I^2t	I^2T for fusing coordination					361	A^2s*10^3
V_{TO}	Threshold voltage		125			0.90	V
r_T	On-state slop resistance					0.93	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=750A	25			1.73	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		180	mA
V_{GT}	Gate trigger voltage			1		3.0	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.120	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.04	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3600			V
F_m	Thermal connection torque(M5)				4.5		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				930		g

Outline:



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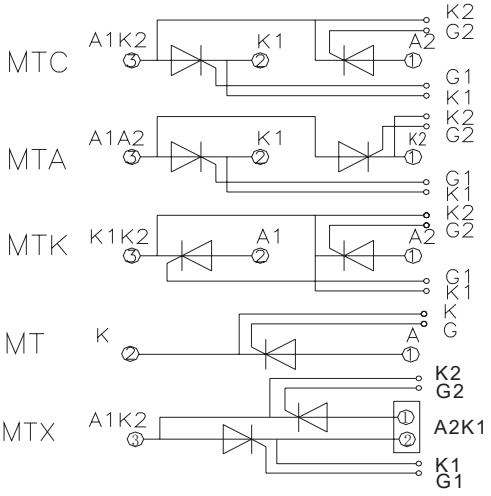

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Dual Thyristor Modules

MTC300 MTA300 MTK300 MTX300 MT300

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

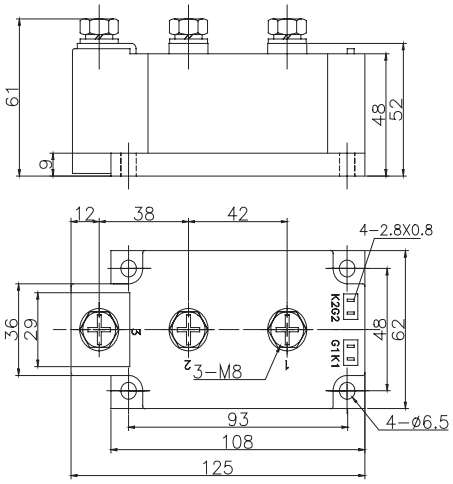
Typical Applications:

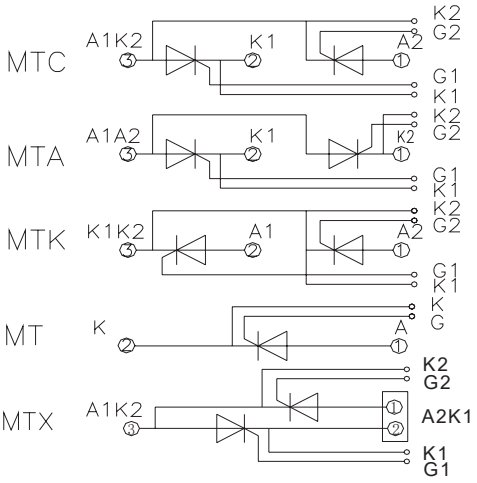
- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	300A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	9.3A × 10^3
I^2t	432A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			300	A
$I_{T(RMS)}$	RMS on-state current		125			471	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DSM}&V_{RSM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			9.3	KA
I^2t	I^2T for fusing coordination					432	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.72	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=900A	25			1.58	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		180	mA
V_{GT}	Gate trigger voltage			1		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.1	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.04	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				12		N·m
	Mounting torque(M6)				6		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				1350		g

Outline:





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Dual Thyristor Modules

MTC300h MTA300h MTK300h MTX300h MT300h

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

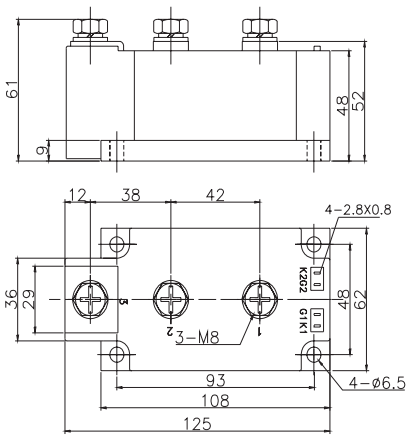
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	300A
V_{DRM} / V_{RRM}	1900~3000V
I_{TSM}	9.3KA
I^2t	432A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			300	A
$I_{T(RMS)}$	RMS on-state current		125			471	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	1900		3000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			50	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			9.30	KA
I^2t	I^2T for fusing coordination					432	A^2s*10^3
V_{TO}	Threshold voltage		125			0.85	V
r_T	On-state slop resistance					0.75	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=900A	25			1.68	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		180	mA
V_{GT}	Gate trigger voltage			1.0		3.0	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.091	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.04	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3600			V
F_m	Thermal connection torque(M5)				4.5		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				125		g

Outline:



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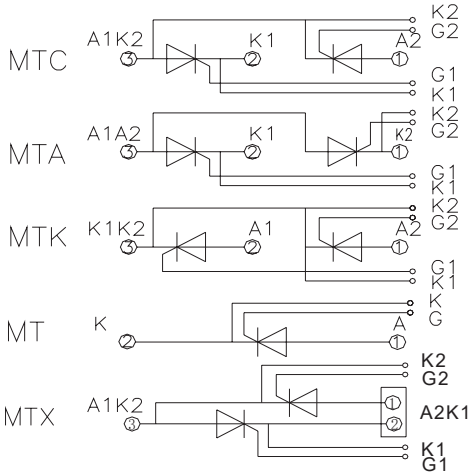

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Dual Thyristor Modules

MTC350 MTA350 MTK350 MTX350 MT350

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

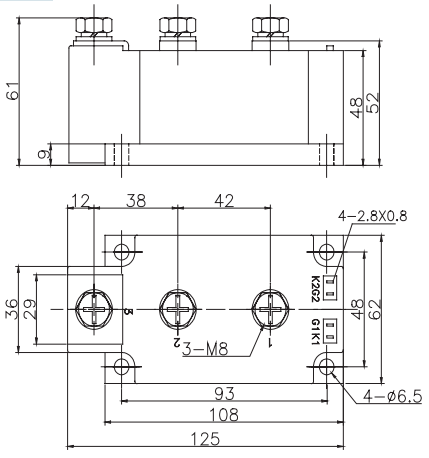
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	350A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	11KA
I^2t	605A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			350	A
$I_{T(RMS)}$	RMS on-state current		125			550	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			11.0	KA
I^2t	I^2T for fusing coordination					605	A^2s*10^3
V_{TO}	Threshold voltage		125			0.95	V
r_T	On-state slop resistance					0.36	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=1050A	25			1.45	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		180	mA
V_{GT}	Gate trigger voltage			1		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.090	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.04	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3600			V
F_m	Thermal connection torque(M5)				4.5		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				1340		g

Outline:



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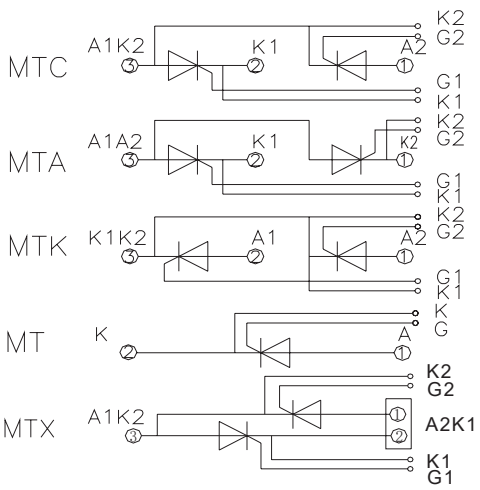

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Dual Thyristor Modules

MTC400 MTA400 MTK400 MTX400 MT400

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

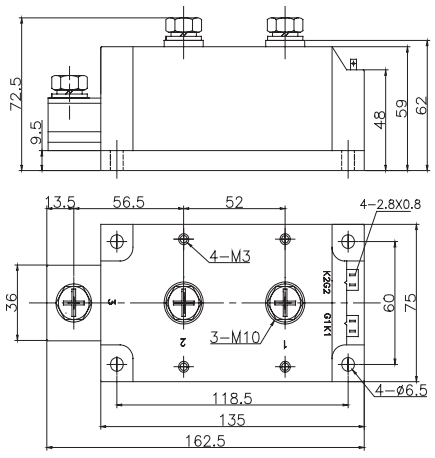
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	400A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	12KA
I^2t	720A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			400	A
$I_{T(RMS)}$	RMS on-state current		125			628	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			12.0	KA
I^2t	I^2T for fusing coordination					720	A^{2}s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.49	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=1200A	25			1.52	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			1		3.0	V
I_H	Holding current			20		150	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.080	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.024	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				6.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				2300		g

Outline:



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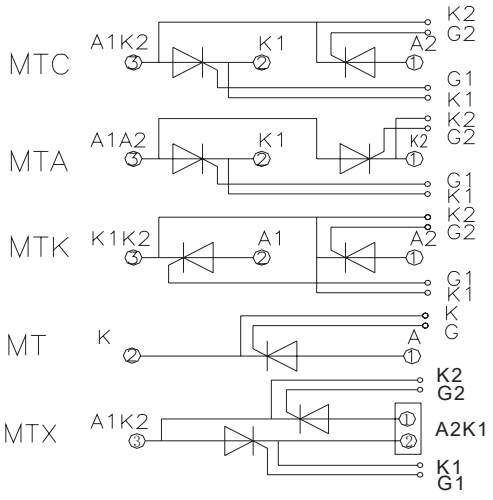

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Dual Thyristor Modules

MTC400s MTA400s MTK400s MTX400s MT400s

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

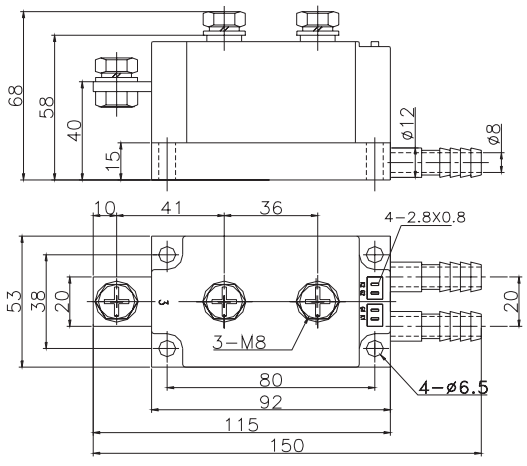
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	400A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	8.5KA
I^2t	361A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			400	A
$I_{T(RMS)}$	RMS on-state current		125			628	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			8.50	KA
I^2t	I^2T for fusing coordination					361	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.80	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=1200A	25			1.90	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			1		3.0	V
I_H	Holding current			20		150	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.110	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled					°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				4.5		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				1300		g

Outline:



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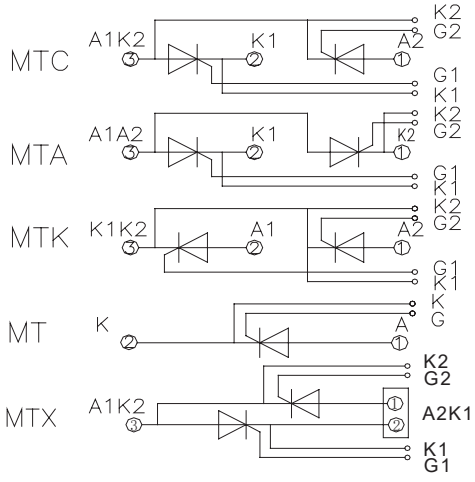

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Dual Thyristor Modules

MTC500 MTA500 MTK500 MTX500 MT500

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

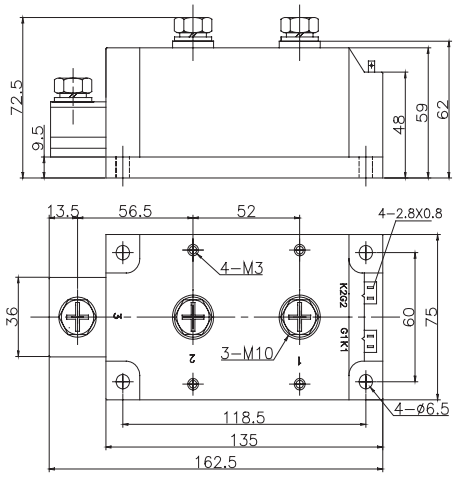
Typical Applications:

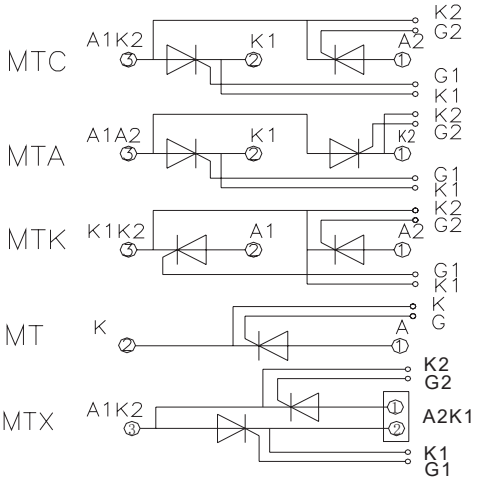
- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	500A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	16A × 10^3
I^2t	1280A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			500	A
$I_{T(RMS)}$	RMS on-state current		125			785	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DSM}&V_{RSM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			16	KA
I^2t	I^2T for fusing coordination	V_R=60%V_{RRM}				1280	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.34	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=1500A	25			1.44	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			1		3	V
I_H	Holding current			20		150	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.065	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled				0.024	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				12		N·m
	Mounting torque(M6)				6		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				2300		g

Outline:





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Dual Thyristor Modules

MTC500s MTA500s MTK500s MTX500s MT500s

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

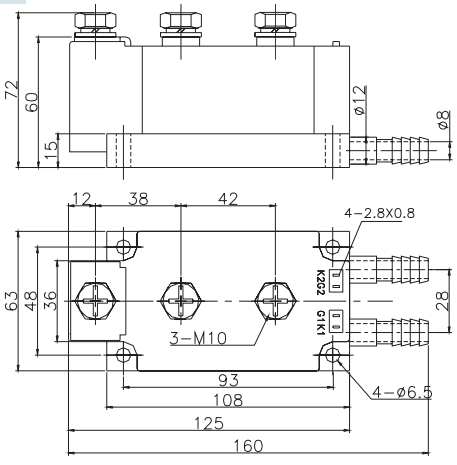
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	500A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	11KA
I^2t	605A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			500	A
$I_{T(RMS)}$	RMS on-state current		125			785	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			11.0	KA
I^2t	I^2T for fusing coordination					605	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.64	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=1500A	25			1.90	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			1.0		3.0	V
I_H	Holding current			20		150	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.087	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled					°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				4.5		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				1300		g

Outline:



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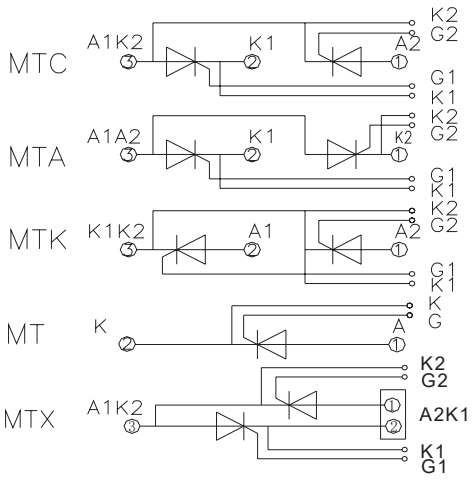

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Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

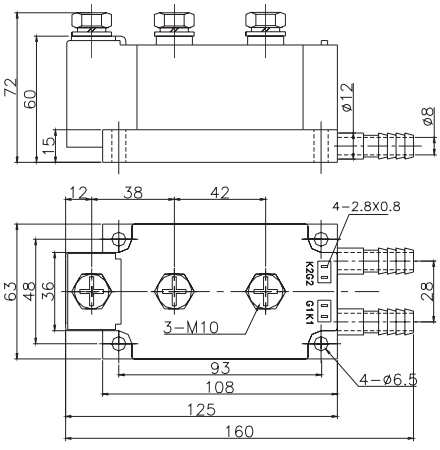
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	600A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	13KA
I^2t	845A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			600	A
$I_{T(RMS)}$	RMS on-state current		125			942	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			13.0	KA
I^2t	I^2T for fusing coordination					845	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.53	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=1800A	25			1.90	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			1		3.0	V
I_H	Holding current			20		150	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.073	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled					°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				6.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				1820		g

Outline:



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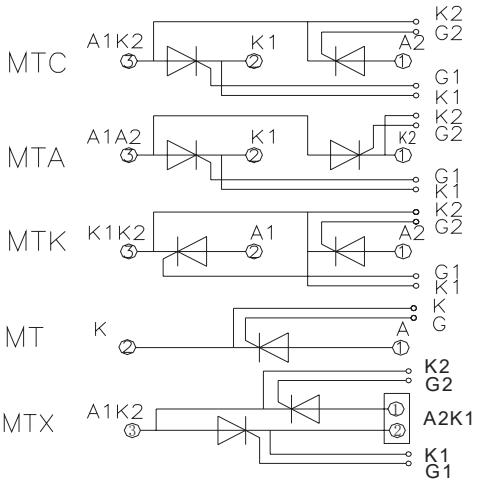


Dual Thyristor Modules

MTC800 MTA800 MTK800 MTX800 MT800

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

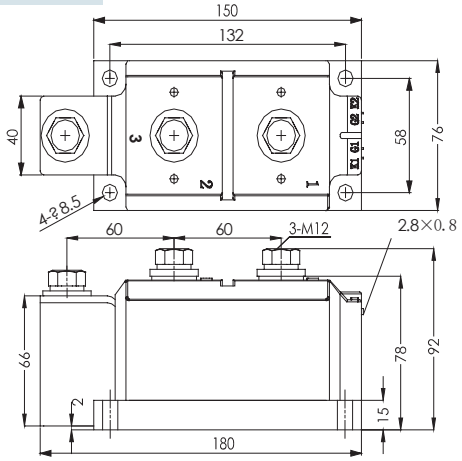
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	800A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	16KA
I^2t	1280A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			800	A
$I_{T(RMS)}$	RMS on-state current		125			1256	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DSM}&V_{RSM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			16.0	KA
I^2t	I^2T for fusing coordination					1280	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.42	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=2400A	25			1.95	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			1		3.0	V
I_H	Holding current			20		150	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.054	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled					°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				7.5		N·m
	Mounting torque(M6)				4.5		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				3500		g

Outline:



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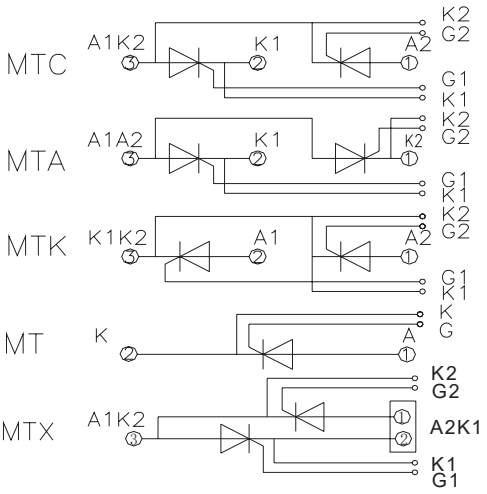

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Dual Thyristor Modules

MTC800s MTA800s MTK800s MTX800s MT800s

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

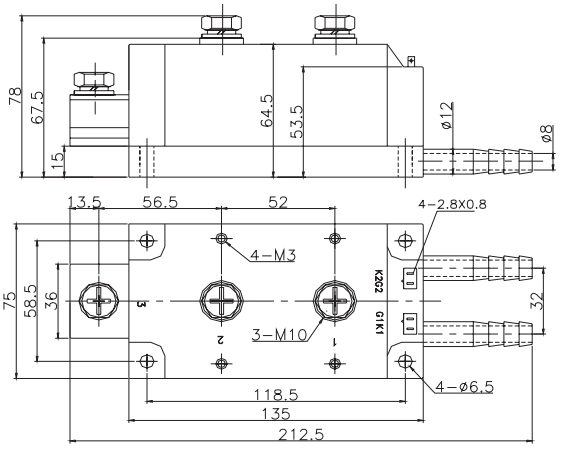
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	800A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	16KA
I^2t	1280A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			800	A
$I_{T(RMS)}$	RMS on-state current		125			1256	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DSM}&V_{RSM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			16.0	KA
I^2t	I^2T for fusing coordination					1280	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.42	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=2400A	25			1.95	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			1		3.0	V
I_H	Holding current			20		150	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.054	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled					°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				6.0		N·m
	Mounting torque(M6)				3.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				2600		g

Outline:



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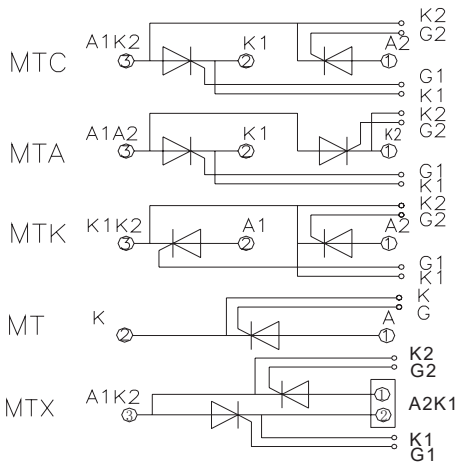

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Dual Thyristor Modules

MTC1000 MTA1000 MTK1000 MTX1000 MT1000

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

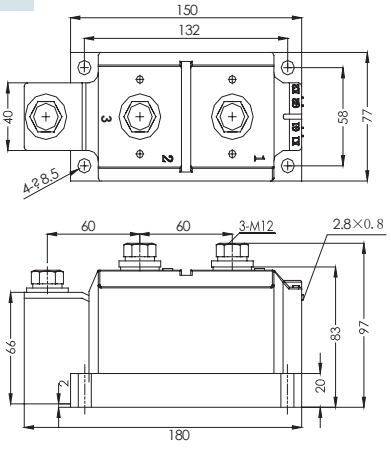
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	1000A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	20KA
I^2t	2000A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			1000	A
$I_{T(RMS)}$	RMS on-state current		125			1570	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DSM}&V_{RSM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			60	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			20.0	KA
I^2t	I^2T for fusing coordination					2000	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.34	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=3000A	25			1.96	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			1		3.0	V
I_H	Holding current			20		150	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.530	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled					°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				7.5		N·m
	Mounting torque(M6)				4.5		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				3800		g

Outline:



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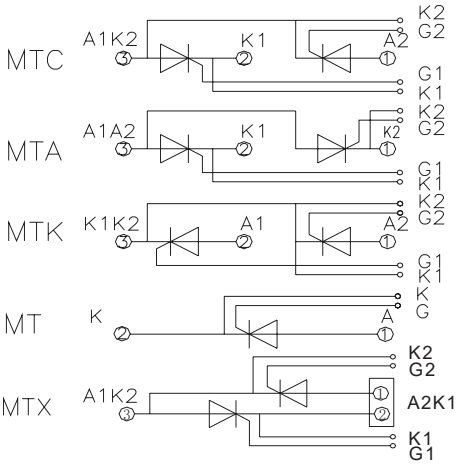

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Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

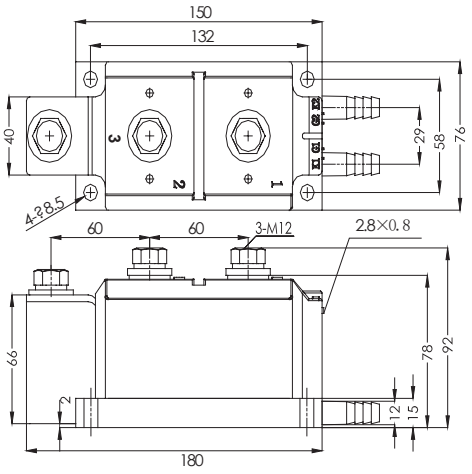
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	1000A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	20KA
I^2t	2000A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			1000	A
$I_{T(RMS)}$	RMS on-state current		125			1570	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			50	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			20.0	KA
I^2t	I^2T for fusing coordination	V_R=60%V_{RRM}				2000	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.33	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=3000A	25			1.95	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			1		3.0	V
I_H	Holding current			20		150	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125				V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.052	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled					°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				7.5		N·m
	Mounting torque(M6)				4.5		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				3600		g

Outline:



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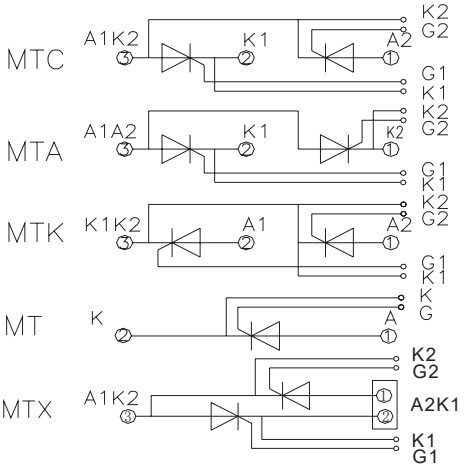


Dual Thyristor Modules

MTC1200 MTA1200 MTK1200 MTX1200 MT1200

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with
- Incrtased power cycling capability
- Space and weight savings

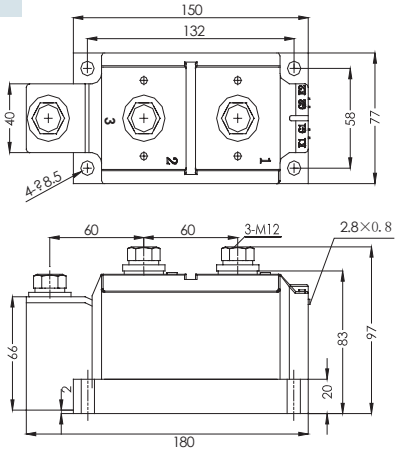
Typical Applications:

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

$I_{T(AV)}$	1200A
V_{DRM} / V_{RRM}	600~1800V
I_{TSM}	24KA
I^2t	2800A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	Tj(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,Tc=85°C	125			1200	A
$I_{T(RMS)}$	RMS on-state current		125			1884	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+200V respectively	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			70	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			24.0	KA
I^2t	I^2T for fusing coordination					2800	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.29	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=3000A	25			1.98	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A tr 0.5μs Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			1		3.0	V
I_H	Holding current			20		150	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.051	°C /W
Rth(c-h)	Thermal resistance case to heatsink	Single side cooled					°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M5)				7.5		N·m
	Mounting torque(M6)				4.5		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				3800		g

Outline:



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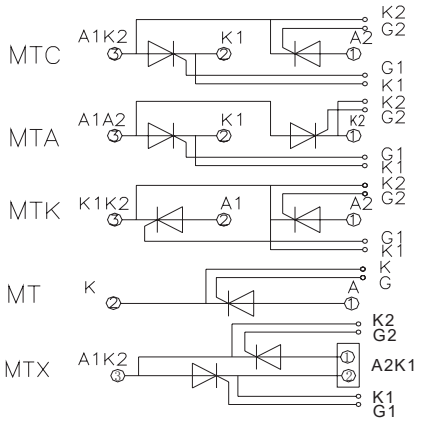

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