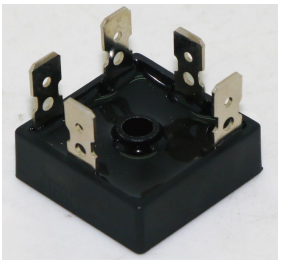
Three-phase Bridge Rectifier

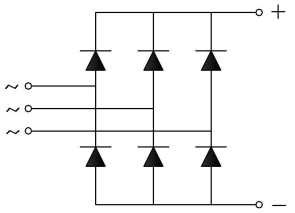
36MT80 thru 36MT160

Feature



- Glass-passivated chip ensures high stability
- Low forward voltage drop
- Isolation voltage 2500V ~
- Small volume, light weight
- Low thermal resistance, high heat-conductivity,low temperature rise

Application



- Power supply for DC power device
- Input rectifier for PWM converter
- DC motor
- Rectifying device for frequency convertors with power under/and 2.2KW

Maximum value

Symbol	Parameter	Rating					Unit
		36MT80	36MT100	36MT120	36MT140	36MT160	
VRRM	Reverse peak repetitive voltage	800	1000	1200	1400	1600	V
VRSM	Reverse peak non-repetitive voltage	900	1100	1300	1500	1700	V

Symbol	Parameter	Test condition	Rating	Unit
$I_{F(AV)}$	Forward average current	TC=85 °C	35	A
I_{FSM}	Forward surge current	sine wave 50Hz ,t=10ms,Tj=25°C	400	A
I^2t	I^2t value		664	A^2S
Viso	Isolation voltage	50Hz,R.M.S ,t=1min, I_{iso}:1mA(max)	2500	V
Tj	Operating junction temperature		-40 to +125	°C
Tjm	Rated junction temperature		150	°C
Tstg	Storage temperature		-40 to 125	°C
Md	Mounting torque M5		2	N•m
Wt	Weight		20	g

Electrical characteristics

Symbol	Parameter	Test condition	Max value	Unit
I_{RRM}	Peak reverse repetitive current	$V_R=V_{RRM}$, Tj=25 °C	5	μA
		$V_R=V_{RRM}$, Tj=150 °C	3	mA
V_{FM}	Peak forward voltage	I_{FM} =17.5A, Tj=25 °C	1.18	V
Rth(j-c)	Thermal impedance (junction-case)	Single-sided heat dissipation	0.95	°C/W

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Performance Curves

FIG1.Derating Curve For Output Rectified Current

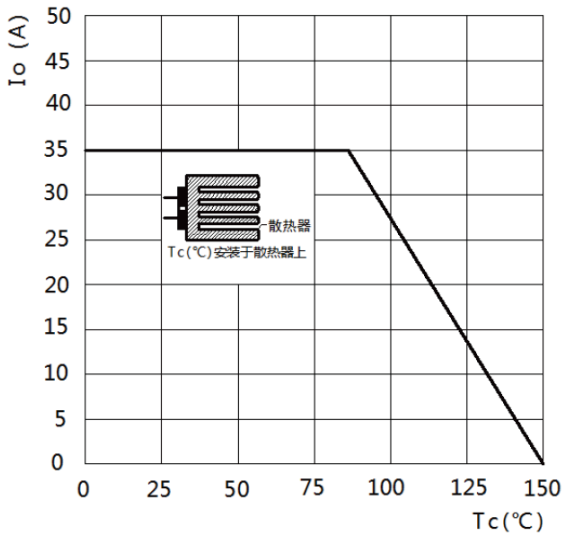


FIG2.Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

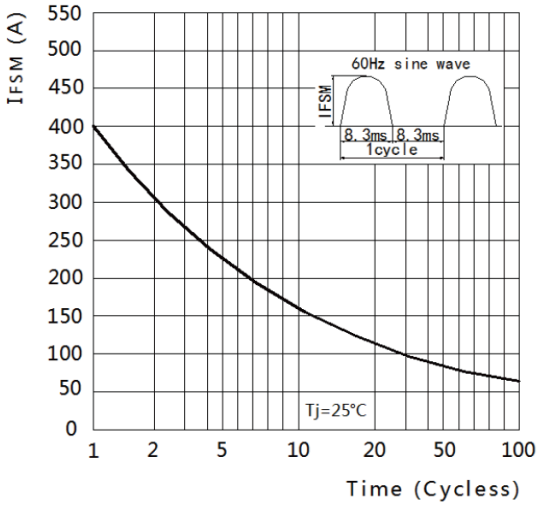
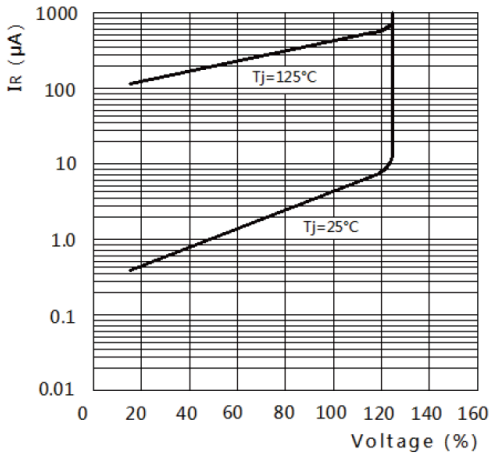
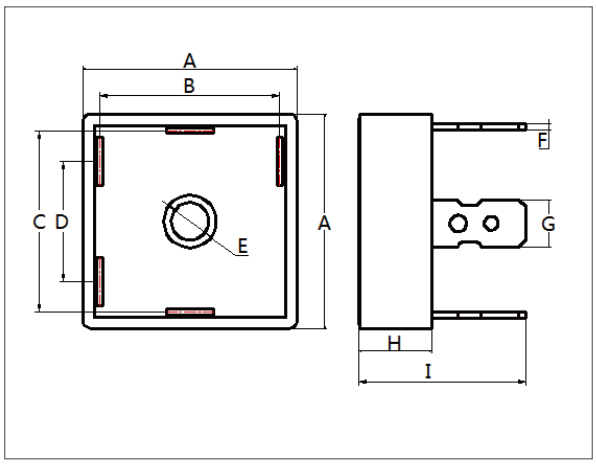


FIG3.Typical Reverse Characteristics Per Bridge Element



Outline



Dim.	Unit(mm)		Unit(inch)	
	Min.	Max.	Min.	Max.
A	28.00	29.00	1.102	1.142
B	23.70	24.70	0.933	0.972
C	23.70	24.70	0.933	0.972
D	15.50	16.50	0.610	0.650
E	4.50	5.50	0.177	0.217
F	0.60	1.00	0.024	0.039
G	6.10	6.50	0.240	0.256
H	9.50	10.50	0.374	0.413
I	21.30	23.30	0.839	0.917

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