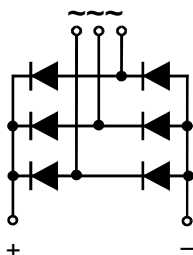


Feature

- International standard package
- Low forward voltage drop
- Isolation voltage 2500V~



Application

- DC power suppliers for apparatus device
- Input rectifying power supply for PWM converters
- Inverter welders

Maximum value

Symbol	Parameter	Rating		Unit
		MDS500-12	MDS500-16	
V_{RRM}	Peak reverse repetitive voltage	1200	1600	V
V_{RSM}	Peak reverse non-repetitive voltage	1300	1700	V

Symbol	Parameter	Test condition	Rating	Unit
I_o	Output DC current	Three-phase whole wave rectifying circuit $T_c:100^{\circ}C$	500	A
I_{FSM}	Forward surge current	$t=10ms, 50HZ, sin, T_{jm}$	7500	A
I^2t	I^2t value	$V_R = 0.6V_{RRM}, T_{jm}$	281250	A ² S
V_{ISO}	Isolation voltage	AC one min	2500	V
T_j	Operating junction temperature		-40 to +150	$^{\circ}C$
T_{jm}	Rated junction temperature		150	$^{\circ}C$
T_{stg}	Storage temperature		-40 to +125	$^{\circ}C$
M_d	Mounting torque (copper plate) M6		5±15%	N·m
	Mounting torque (terminal) <small>M8 M12</small>		7±15% 12±15%	N·m
W_t	weight		1100	g

Electrical characteristics

Symbol	Parameter	Test condition	Rating	Unit
I_{RRM}	Peak reverse repetitive current	Single-side heat dissipation, $V_R=V_{RRM}$, sine half wave, $T_j=150^{\circ}C$	10	mA
V_{FM}	Peak forward voltage	$I_{FM}=400A, T_j=25^{\circ}C$	1.3	V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single-side heat dissipation, sine half wave	0.12	$^{\circ}C/W$

Performance Curves

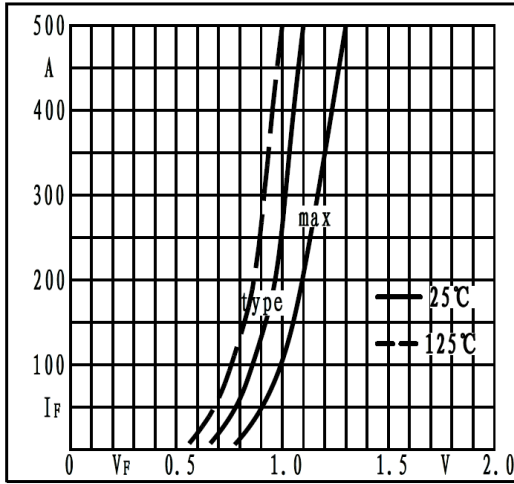


Fig1. Forward characteristics

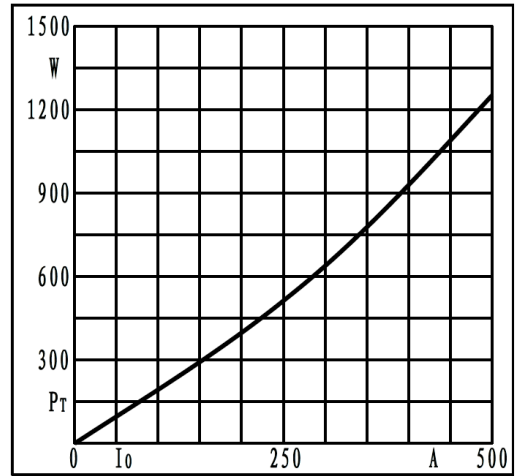


Fig2. Power dissipation

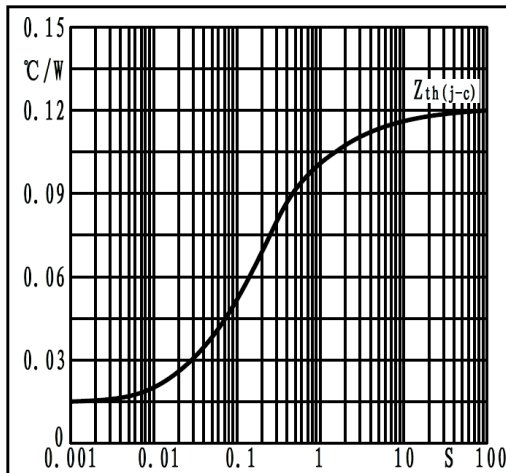


Fig3. Transient thermal impedance

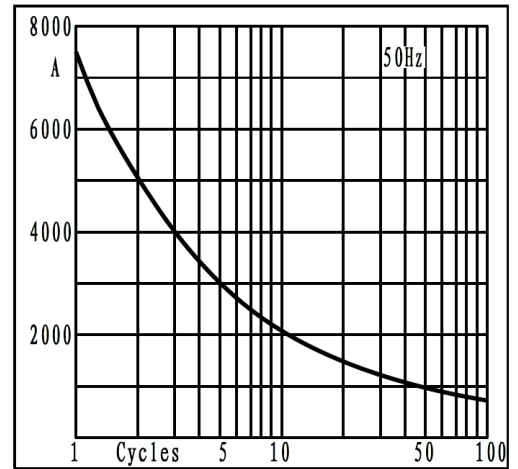


Fig4. Max non-repetitive forward surge current

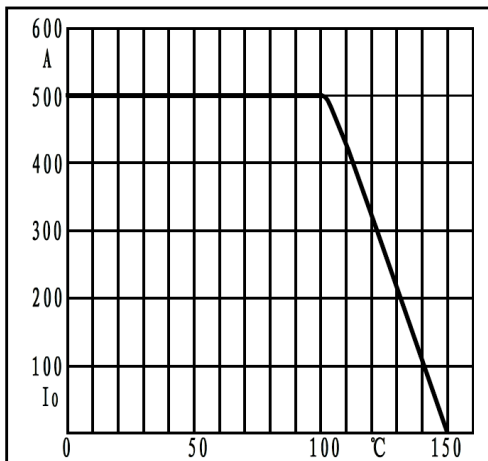


Fig5. Forward current derating curve

Dimension

