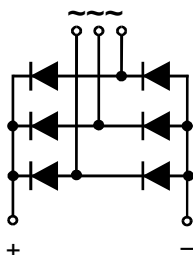


#### Feature

- 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
		MDS500-06F	MDS500-08F	MDS500-10F	MDS500-12F	MDS500-14F	MDS500-16F	MDS500-18F	
$V_{RRM}$	Peak reverse repetitive voltage	600	800	1000	1200	1400	1600	1800	V
$V_{RSM}$	Peak reverse non-repetitive voltage	700	900	1100	1300	1500	1700	1900	V

Symbol	Parameter	Test condition	Rating	Unit
$I_o$	Output DC current	Three-phase whole wave rectifying circuit $T_c:100^\circ\text{C}$	500	A
$I_{FSM}$	Forward surge current	$t=10\text{ms}, 50\text{HZ}, \text{sin}, T_{jm}$	7500	A
$I^2t$	$I^2t$ value	$V_R = 0.6V_{RRM}, T_{jm}$	281250	$\text{A}^2\text{S}$
$V_{ISO}$	Isolation voltage	AC one min	2500	V
$T_j$	Operating junction temperature		-40 to +150	$^\circ\text{C}$
$T_{jm}$	Rated junction temperature		150	$^\circ\text{C}$
$T_{stg}$	Storage temperature		-40 to +125	$^\circ\text{C}$
$M_d$	Mounting torque (copper plate) M6		$5\pm 15\%$	$\text{N}\cdot\text{m}$
	Mounting torque (terminal) <small>M8 M12</small>		$7\pm 15\%$ $12\pm 15\%$	$\text{N}\cdot\text{m}$
$W_t$	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, $T_j=150^\circ\text{C}$	10	mA
$V_{FM}$	Peak forward voltage	$I_{FM}=400\text{A}, T_j=25^\circ\text{C}$	1.3	V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single-side heat dissipation, sine half wave	0.12	$^\circ\text{C}/\text{W}$

Performance Curves

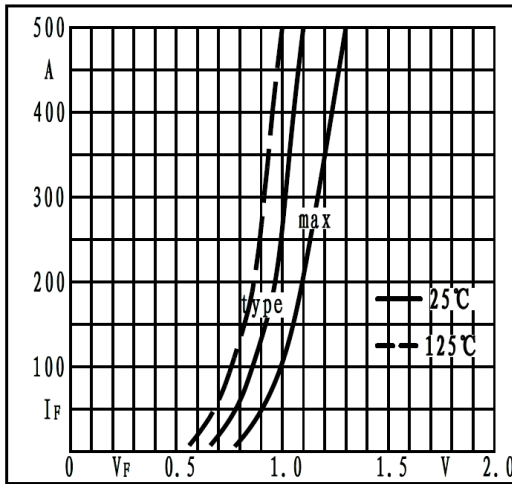


Fig1. Forward characteristics

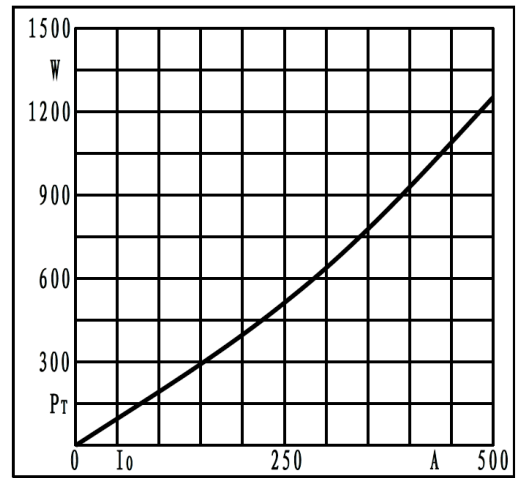


Fig2. Power dissipation

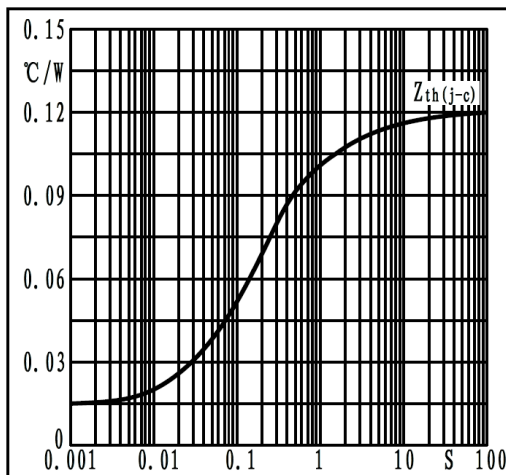


Fig3. Transient thermal impedance

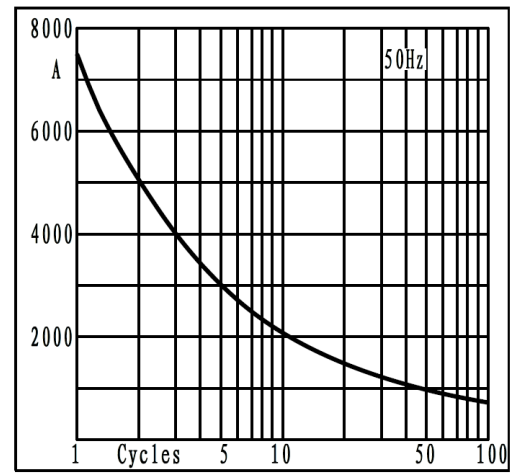


Fig4. Max non-repetitive forward surge current

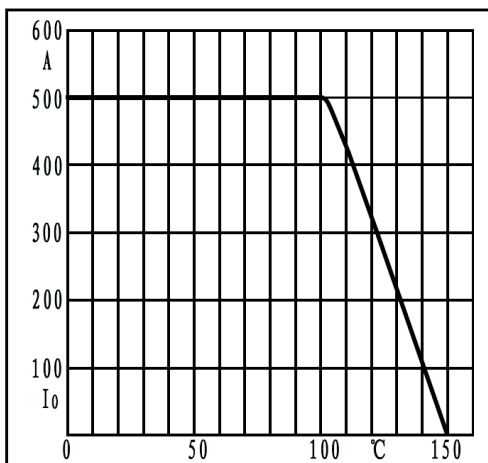


Fig5. Forward current derating curve

### Dimension

