

# THREE PHASE BRIDGE MODULE

## MDS200



## FEATURES

- 👉 **Isolated mounting base 2500V-**
- 👉 **Pressure contact technology with increased power cycling capability**
- 👉 **Space and weight savings**
- 👉 **Welding**

## TYPICAL APPLICATIONS

- 👉 **Inverter**
- 👉 **Inductive heating**
- 👉 **Chopper**

**THREE PHASE  
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TECHNICAL DATA

**DEVICE TYPE**

$V_{RRM}$   
(V)

$V_{RSM}$   
(V)

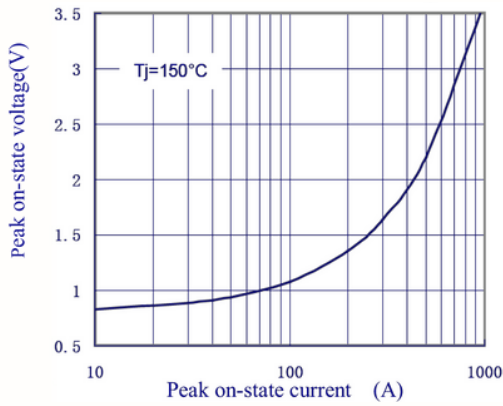
MDS200/04	400	500
MDS200/16	1600	1700

SYMBOL	PARAMETER	TEST CONDITION	RATINGS	UNIT
$I_o$	Output DC current	Three-phase whole wave rectifying circuit $T_C: 100^\circ\text{C}$	200	A
$I_{FSM}$	Forward surge current	$t=10\text{ms}, 50\text{HZ}, \sin, T_{jm}$	2100	A
$I^2t$	$I^2t$ value	$V_R = 0.6V_{RRM}, T_{jm}$	22100	A <sup>2</sup> S
$V_{ISO}$	Isolation voltage	AC one min	2500	V
$T_j$	Operating junction temperature		-40 to +150	°C
$T_{jm}$	Rated junction temperature		150	°C
$T_{stg}$	Storage temperature		-40 to +125	°C
$M_d$	Mounting torque (copper plate) M6		4	N·m
	Mounting torque (terminal) M6		6	N·m
$W_t$	weight		300	g

**ELECTRICAL CHARACTERISTICS**

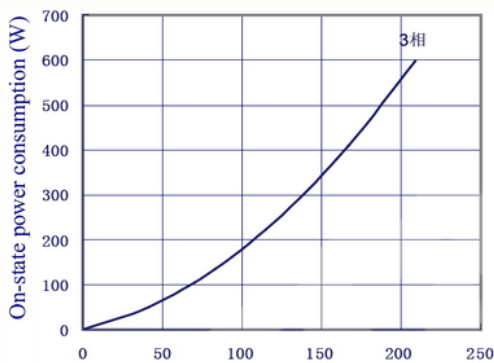
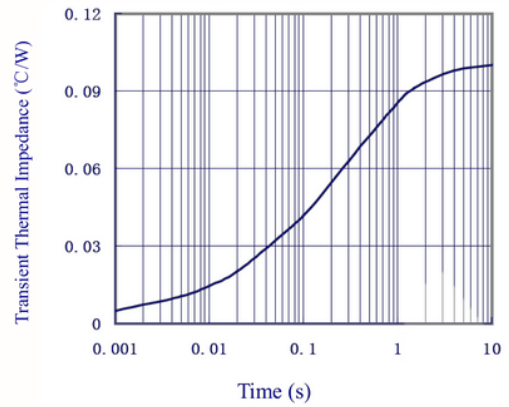
SYMBOL	ITEM	CONDITION	RATINGS			UNIT
			MIN	TYP	MAX	
$I_{RRM}$	Peak reverse repetitive current	Single-side heat dissipation, $V_R = V_{RRM}$ , sine half wave, $T_j = 150^\circ\text{C}$		15		mA
$V_{FM}$	Peak forward voltage	$I_{FM} = 100\text{A}, T_j = 25^\circ\text{C}$		1.35		V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single-side heat dissipation, sine half wave		0.1		°C/W

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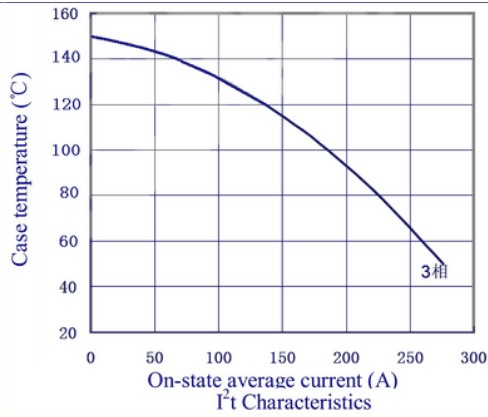
**FIG. 1** forward current vs. forward voltage

**FIG. 2** thermal impedance (junction to case)



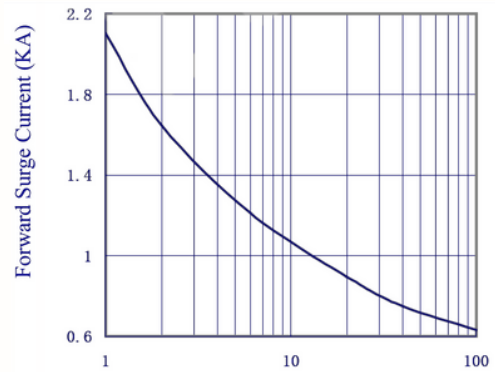
**FIG. 3** on-state average current (A) forward surge current vs. cycle

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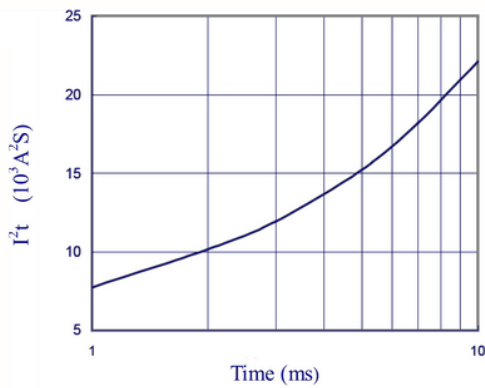


**FIG. 4** on-state average current (A)  $I^2t$  characteristics

**FIG. 5** on-state average current (A) forward surge current vs. cycle

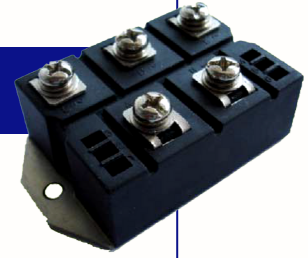


**FIG. 6** time (ms)

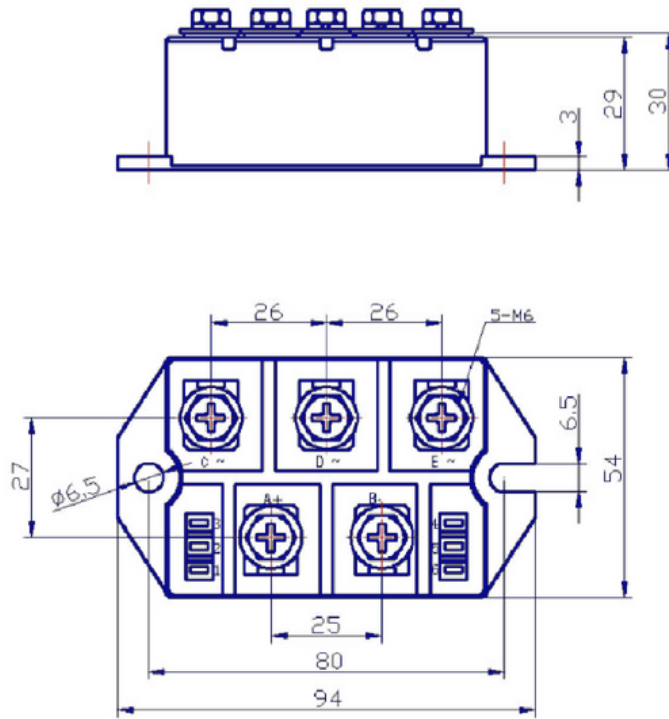


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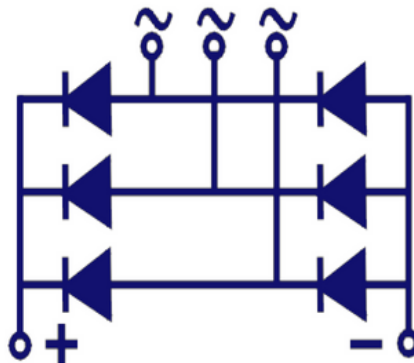


PACKAGE OUTLINE



IR-7

**CIRCUIT DIAGRAM**



all dimensions in mm