MDS110.16

Diode module

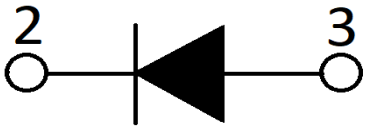


Features:

- International standard package
- Low forward voltage drop
- Isolation voltage 2500V ~
- Simple mounting
- UL recognized, file no. E312789

Typical applications:

- Various rectifier power
- AC/DC motor control
- Heater control
- Frequency converters



Symbol	Characteristcs	Test Conditions	Value			Unit
			Min	Typ	Max	
V_{RSM}	Non-repetitive reverse blocking voltage	Tj = 25°C			1700	V
V_{RRM}	Repetitive reverse blocking voltage	Tj = 25°C			1600	V
$I_{F(AV)}$	Forward average current	180° half sine wave 50Hz T_c = 100°C			110	A
$I_{F(RMS)}$	Forward square root current	180° half sine wave 50Hz			170	A
I_{RRM}	Repetitive peak current	at V_{RRM}, Tj = 25°C			0.5	mA
		at V_{RRM}, Tj = 150°C			8	mA
I_{FSM}	Forward surge current	10ms half sine wave, Tj = 25°C			3000	A
I^2t	I^2t for fusing coordination	t = 10ms, Tj = 25°C			45000	A^2s
V_{FO}	Threshold voltage	Tj = 125°C			0.70	V
r_T	Forward slope resistance	Tj = 125°C			1.21	mΩ
V_{FM}	Peak forward voltage	Tj = 25°C ; I_F = 330A			1.20	V
$R_{th(j-c)}$	Thermal resistance junction to case	Single side cooled per chip			0.40	°C/W
$R_{th(c-s)}$	Thermal resistance case to sink	Single side cooled per chip			0.20	°C/W
V_{ISO}	Isolation voltage	50Hz, RMS, t = 1min			2500	V
F_M	Mounting torque - copper plate (M6)		4		6	N·m
	Mounting torque - terminal (M5)		2.5		4.5	N·m
T_{stg}	Storage Temperature		-40		+125	°C
T_j	Operating Temperature		-40		+150	°C
W_t	Weight			105		g
Outline	M01-1					

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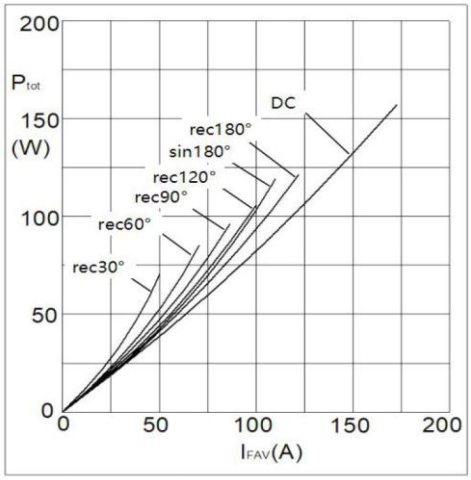


Fig1. Power Dissipation

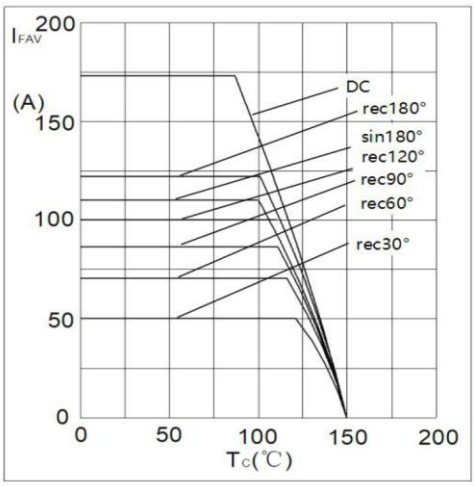


Fig2. Forward Current Derating Curve

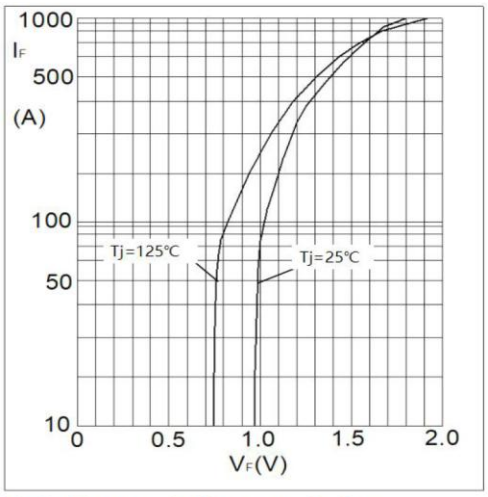


Fig3. Forward Characteristics

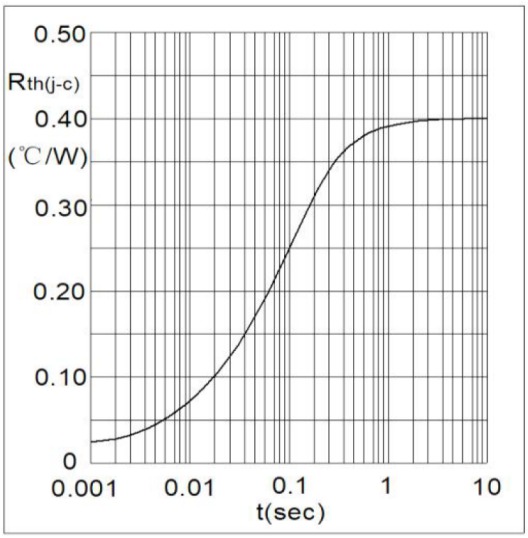


Fig4. Transient Thermal impedance

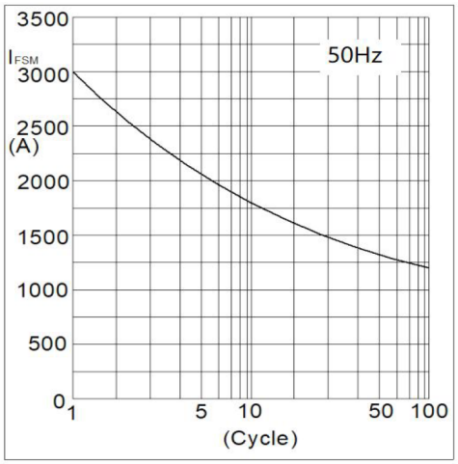
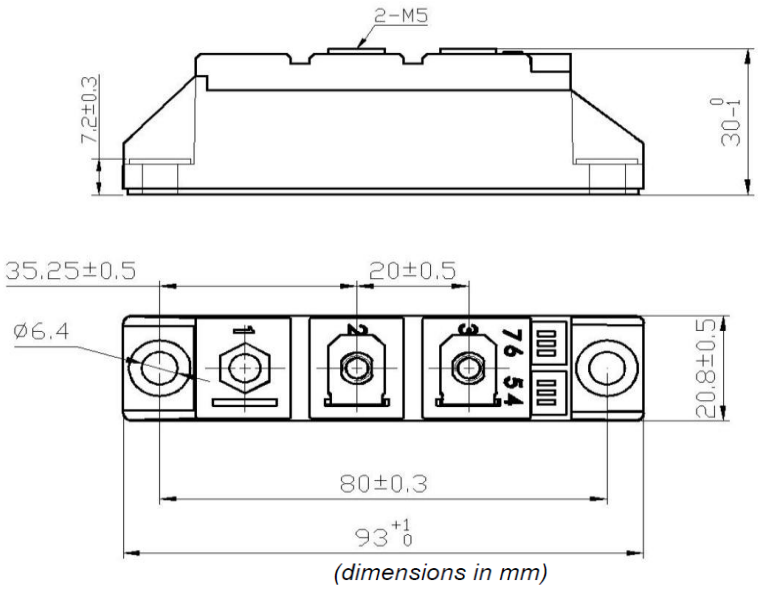


Fig5. Max Non-Repetitive Forward Surge Current



(dimensions in mm)

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