SCOMES

MDS95.16
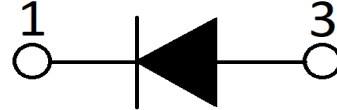### Diode module

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

1 ◁ 3

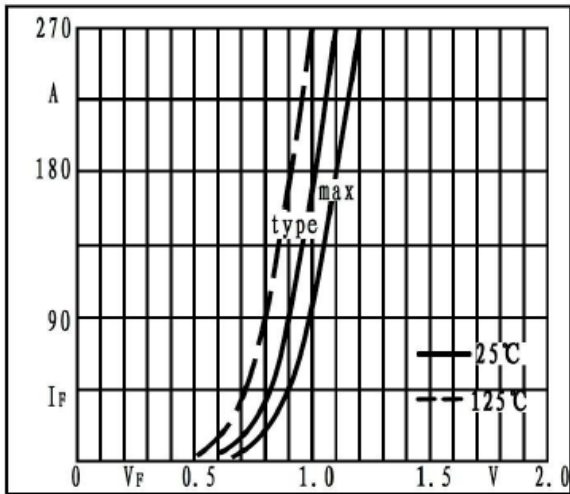| Symbol	Characteristcs	Test Conditions	Value Min	Value Typ	Value Max	Unit
$V_{RSM/DSM}$	Non-repetitive reverse/forward blocking voltage	Tj = 25°C			1700	V
$V_{RRM/DRM}$	Repetitive reverse/forward blocking voltage	Tj = 25°C			1600	V
$I_{F(AV)}$	Forward average current	180° half sine wave 50Hz T_c = 100°C			95	A
$I_{F(RMS)}$	Forward square root current	180° half sine wave 50Hz T_c = 100 °C			141	A
I_{RRM} I_{DRM}	Repetitive peak current	at V_{DRM}/V_{RRM} Tj = 150°C			8	mA
I_{FSM}	Forward surge current	10ms half sine wave, Tj = 45°C			2300	A
I^2t	I^2t for fusing coordination	V_R = 0.6 V_{RRM}, Tj = 45°C			26450	A^2s
V_{FO}	Threshold voltage	Tj = 150°C			0.80	V
r_T	Forward slope resistance	Tj = 150°C			1.35	mΩ
V_{FM}	Peak forward voltage	T=25°C ; I_T=270A		1.10	1.20	V
$R_{th(j-c)}$	Thermal resistance junction to case	Single side cooled per chip			0.47	°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		150	°C
T_j	Operating Temperature		-40		150	°C
W_t	Weight			120		g
Outline	M01-1					

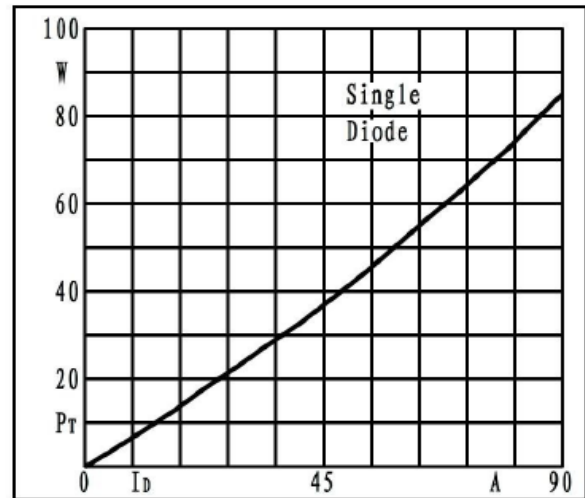![SCOMES logo]

Fig1. Forward characteristics
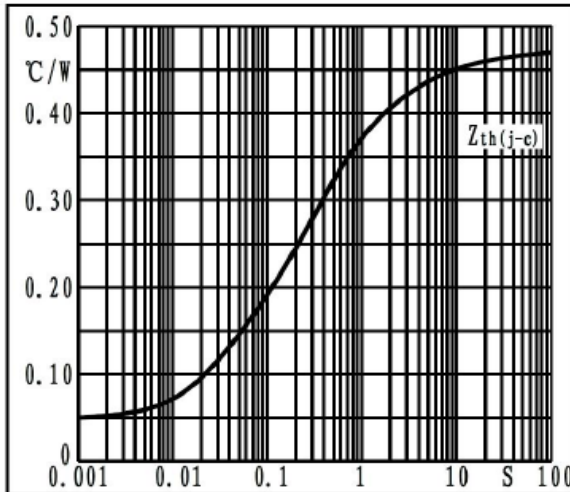
Fig2. Power dissipation

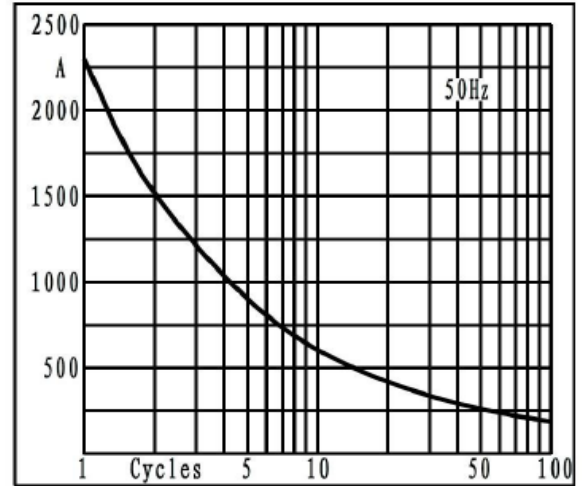**Fig3. Transient thermal impedance**

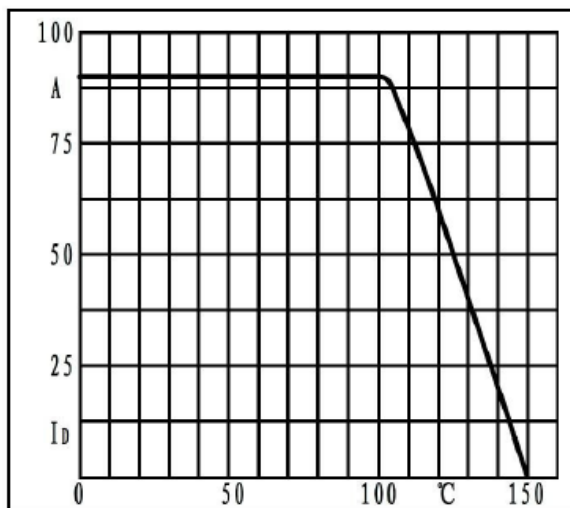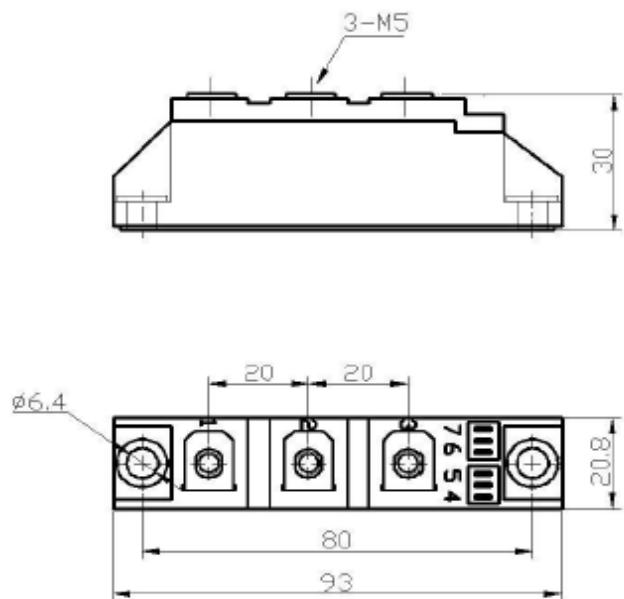**Fig4. Max non-repetitive forward surge current**

Fig5. Forward current derating curve

3-M5

(dimensions in mm)

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