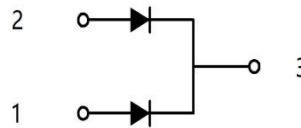


Schottky Diode Module

Symbol	Value	Unit
V_R	100	V
I_{FAV}	600	A



Features

- Low Forward Voltage
- High Surge Current Capability
- Low Inductance Package

Applications

- Inversion Welder
- General Power Supply
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper

Maximum Ratings

Symbol	Item	Conditions	Values	Unit
V_R	Maximum D.C. Reverse Voltage	-	100	V
V_{RRM}	Maximum Repetitive Reverse Voltage	-		
I_{FAV}	Average Forward Current	Rectangular, d=0.5, $T_C=98^\circ\text{C}$, Per Leg	300	A
		Rectangular, d=0.5, $T_C=98^\circ\text{C}$, Per Module	600	
I_{FSM}	Non-Repetitive Peak Surge Current	t=50Hz(10ms), $V_R=0\text{V}$, Per Leg, $T_j=25^\circ\text{C}$	4800	A
I^2t	Circuit Fusing Consideration	t=10ms, $T_j=25^\circ\text{C}$	115200	A^2s
T_j	Operating Junction Temperature	-	-40 to +150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-	-40 to +125	$^\circ\text{C}$
M_t	Mounting Torque	To Terminals(M6)	5±15%	N·m
M_s		To Heatsink(M6)	5±15%	
Weight	Module (Approximately)	-	85	g

Thermal Characteristics

Symbol	Item	Conditions	Values	Unit
$R_{th(j-c)}$	Thermal Impedance, Max	Junction to Case(Per Leg)	0.15	$^\circ\text{C}/\text{W}$

Electrical Characteristics

Symbol	Item	Conditions	Values			Unit
			Min.	Typ.	Max.	
V_{FM}	Forward Voltage Drop Per Leg, Max	$T_j=25^\circ\text{C}$, $I_F=300\text{A}$	-	-	0.95	V
I_{RRM}	Repetitive Peak Reverse Current Per Leg, Max	$T_j=25^\circ\text{C}$, $V_R=V_{RRM}$	-	-	0.2	mA
		$T_j=150^\circ\text{C}$, $V_R=V_{RRM}$	-	-	50	
V_{T0}	Threshold Voltage, for power loss calculation only	$T_j=125^\circ\text{C}$	0.55			V
r_T	Slope Resistance, for power loss calculation only	$T_j=125^\circ\text{C}$	1.0			m Ω

Characteristics Diagram

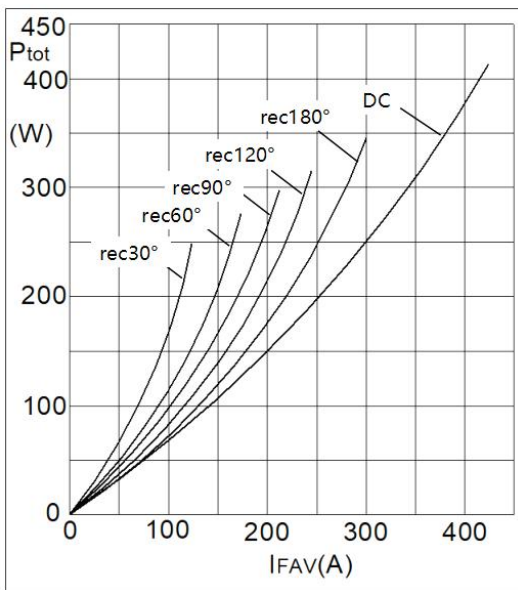


Fig1. Power Dissipation

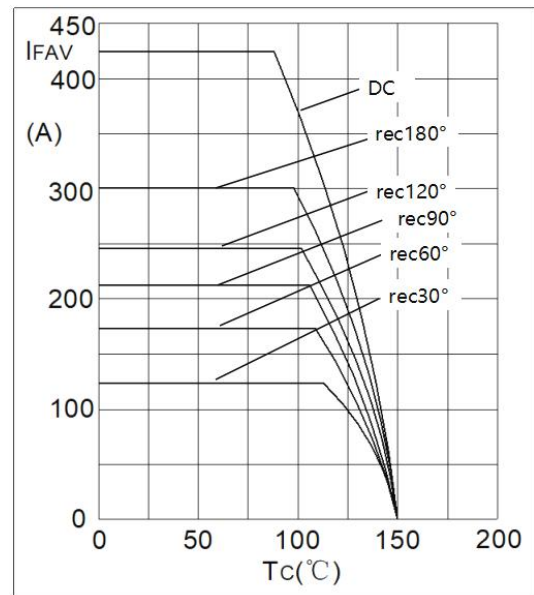


Fig2. Forward Current Derating Curve

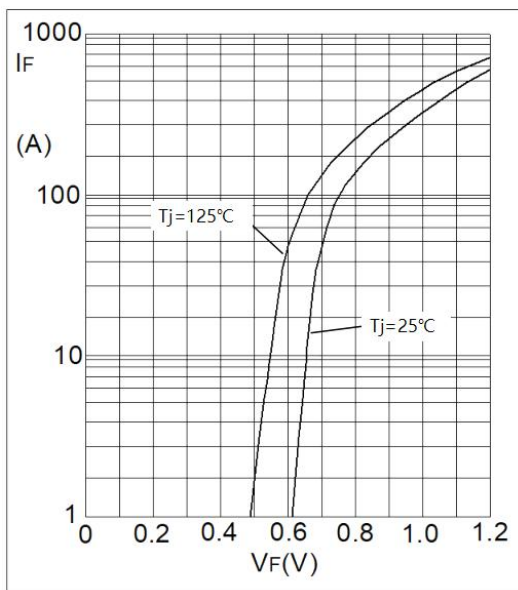


Fig3. Forward Characteristics

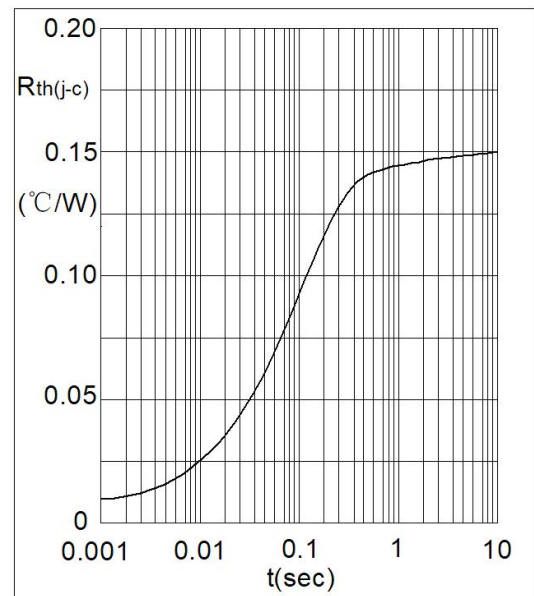


Fig4. Transient Thermal Impedance

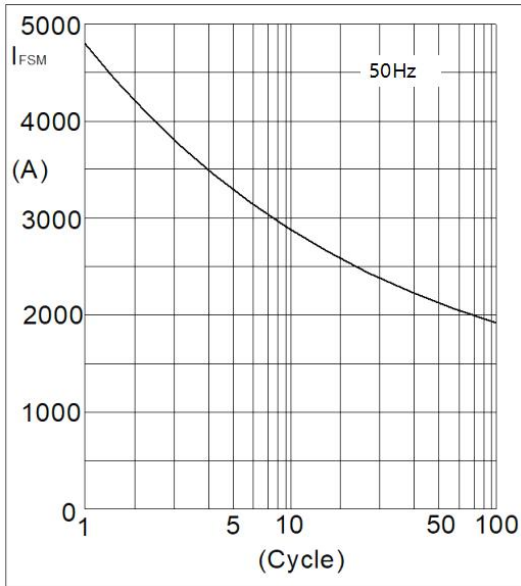


Fig5. Max Non-Repetitive Forward Surge Current

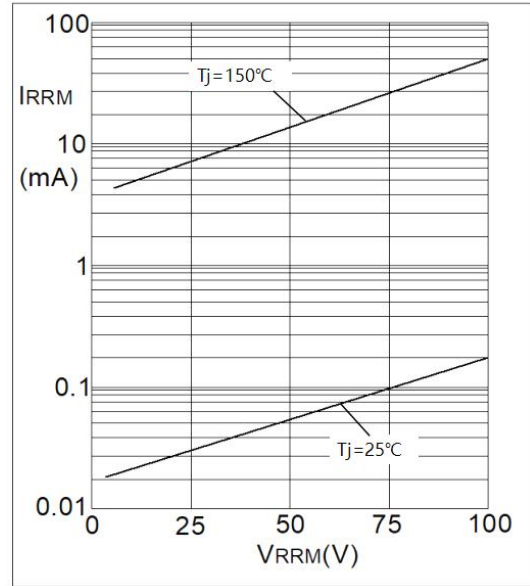
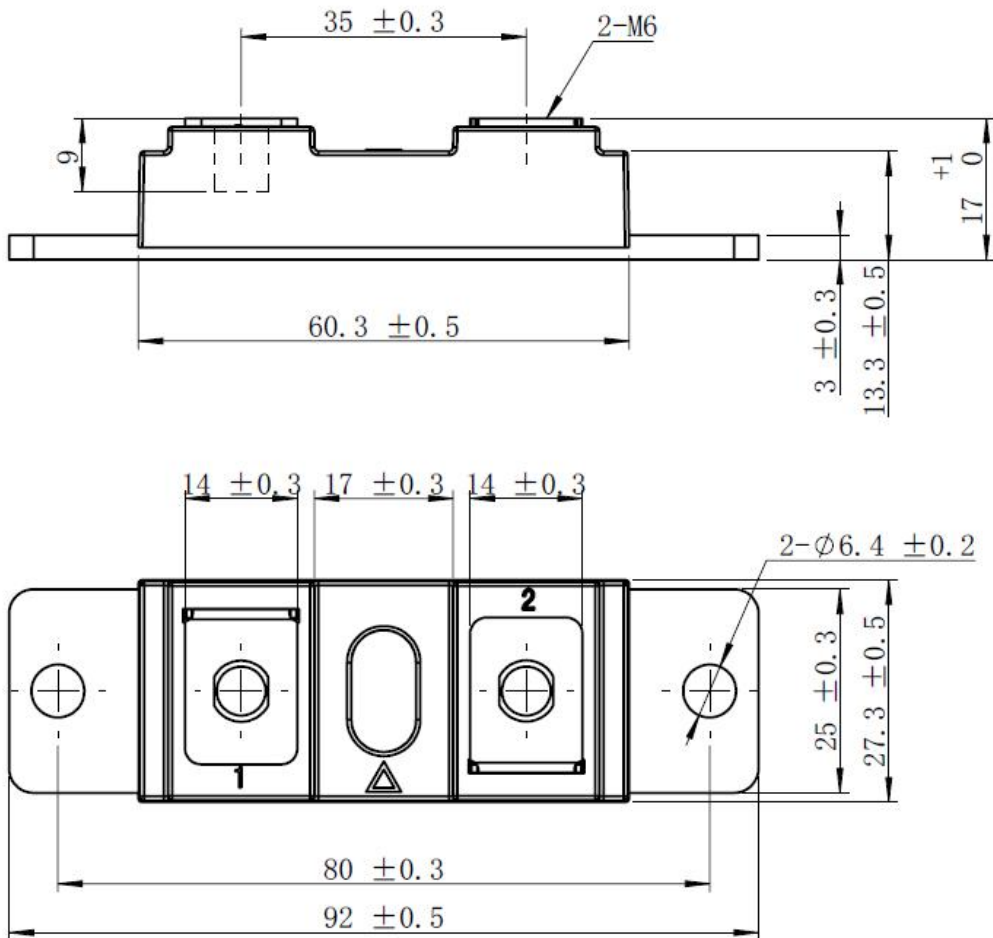


Fig6. Reverse Current VS Reverse Voltage

Package Outlines M45 (Dimensions in mm)



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