

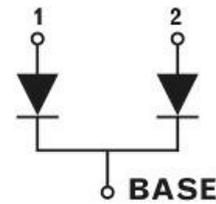
### Schottky Diode Module

Parameter	Value	Unit
$V_R$	200	V
$I_{F(AV)}$	300	A



#### Features

- 175°C Tj operation
- Centertapmodule
- Lo forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and Long term reliability
- Designed and qualified for industrial level



#### Applications

- High current switching power supplies
- Plating power supplies
- UPS system
- Converters
- Freewheeling
- Welder
- Reverse battery protection

#### Maximum Ratings

Symbol	Description	Value	Unit
$V_R$	Maximum DC reverse voltage	200	V
$V_{RRM}$	Maximum working peak reverse voltage	200	
$I_{F(AV)}$	Rectangular waveform	300	A
$I_{FSM}$	$T_p=10ms$ sine	2000	A
$V_F$	150APK $T_J=125^\circ C$ (per leg)	0.75	V
$T_J$	Range	-55 to 175	°C

#### Electrical Characteristics

Parameter	Symbol	Conditions	Value	Unit
Maximum average forward Current	$I_{F(AV)}$	50% duty cycle at $T=142^\circ C$ , rectangular waveform	150	A
			300	
Maximum peak one cycle non-repetitive surge current per leg	$I_{FSM}$	10 ms sine or 6 ms rect. pulse	2000	A
Non- repetitive avalanche energy per leg	EAS	$T_J=25^\circ C, I_{AS}=13A, L=0.2mH$	15	mJ
Repetitive avalanche current per leg	IAR	Current decaying linearly to zero in $1\mu s$ Frequency limited by $T_J$ maximum $V_A=1.5xV$ typical	1	A

**Electrical Specifications**

Parameter	Symbol	Conditions		Value	Unit
Maximum forward voltage drop per leg	V <sub>FM</sub> (1)	150A	T <sub>J</sub> =25°C	0.88	V
		300A		1.05	
		150A	T <sub>J</sub> =125°C	0.75	
		300A		0.9	
Maximum reverse leakage current per leg	I <sub>RM</sub> (1)	T <sub>J</sub> =25°C	V <sub>R</sub> =Rated V <sub>R</sub>	2.5	mA
		T <sub>J</sub> =125°C		40	
Maximum junction capacitance per leg	C <sub>T</sub>	V <sub>R</sub> =5VDC(test signal range 100kHz to 1MHZ) 25°C		4150	pF
Typical series inductance per leg	L <sub>S</sub>	From top of terminal hole to mounting plane		6.0	nH
Maximum voltage rate of change	dV/dt	Rated V <sub>R</sub>		10000	V/μs

Note: (1) Pulse width < 300 μs, duty cycle < 2%

**Thermal Characteristics**

Parameter	Symbol	Min	Typ	Max.	Unit
Maximum junction and storage temperature range	T <sub>J</sub> , T <sub>Stg</sub>	-55	-	175	°C
Thermal resistance, junction to case per leg	R <sub>thjc</sub>	-	-	0.19	°C/W
Thermal resistance, junction to case per module	R <sub>thCS</sub>	-	-	0.085	
Thermal resistance, case to heatsink		-	0.1	-	
Weight		-	78	-	g
Mounting torque		35.4(4)	-	53.1(6)	lbf · in (N·m)
Mounting torque center hole		30(3.4)	-	40(4.6)	
Terminal torque		30(3.4)	-	44.2(5)	
Vertical pull		-	-	80	lbf · in
2" lever pull		-	-	35	

**Typical Characteristics**

Figure .1- Typical Forward Characteristics

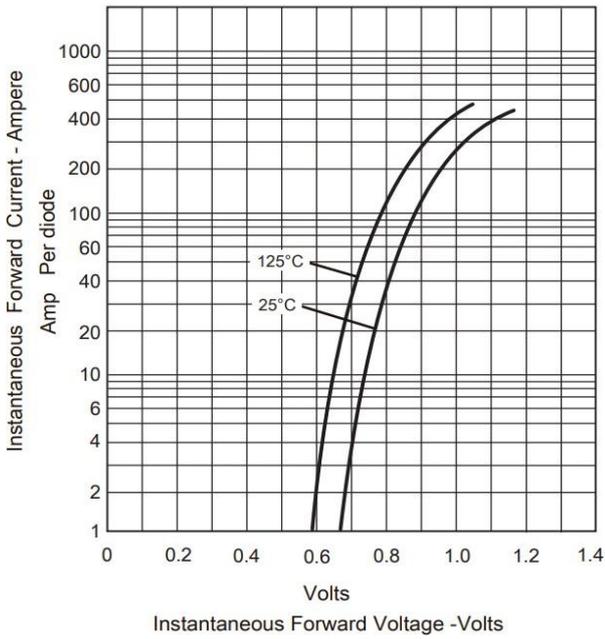


Figure .2-Forward Derating Curve

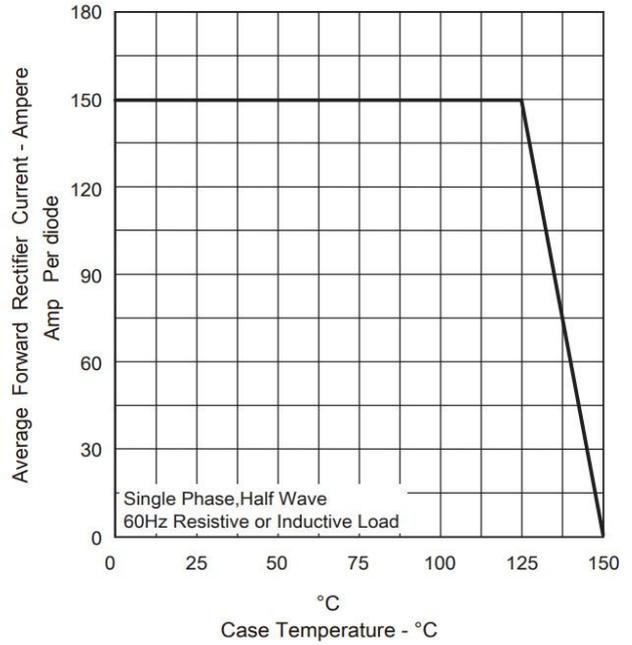


Figure .3-Peak Forward Surge Current

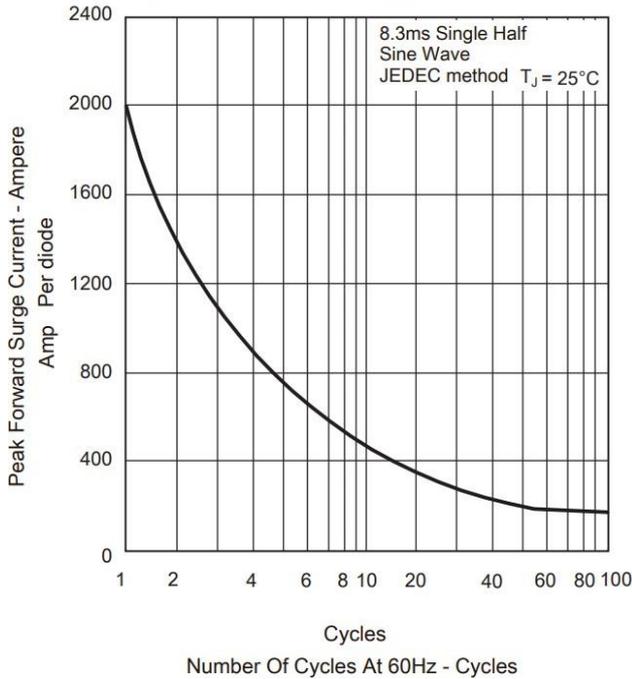
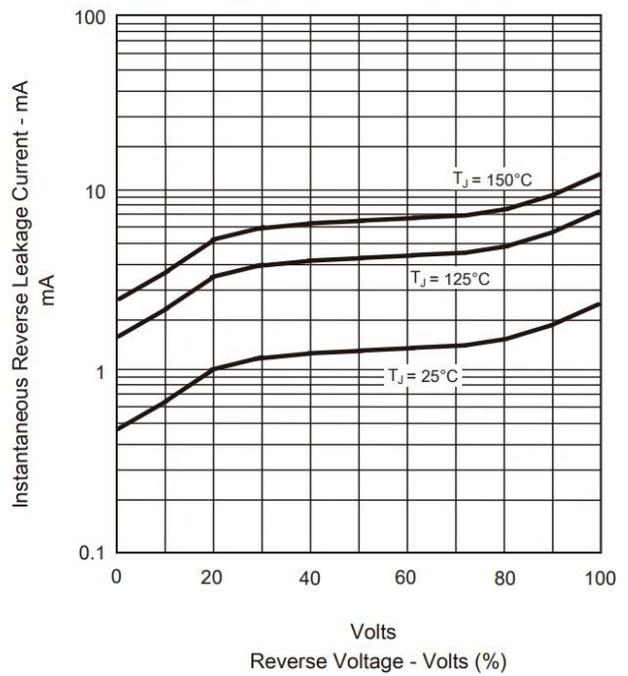
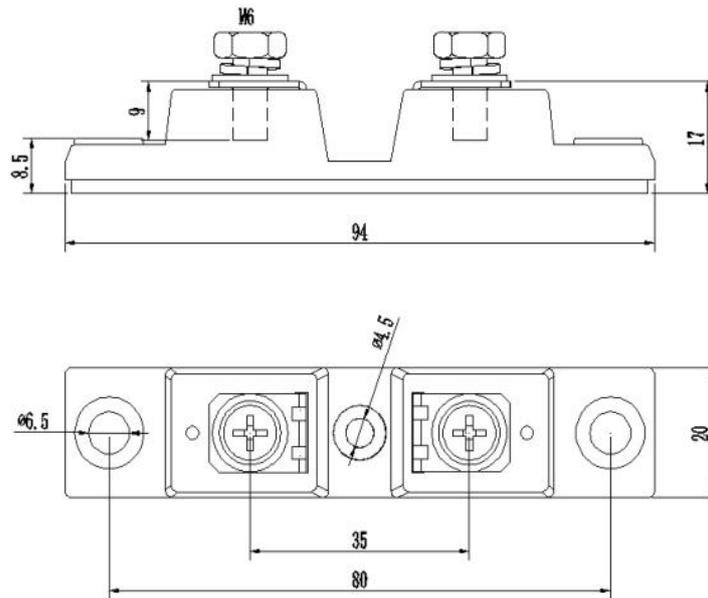


Figure .4-Typical Reverse Characteristics



**Package Outlines**

Dimensions in mm

**\*Important Usage Information and Disclaimer**

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