

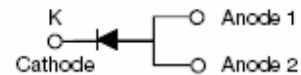
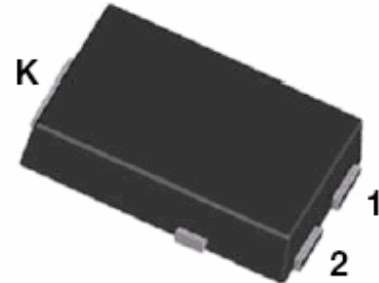
MBR15200S SCHOTTKY RECTIFIER

Applications:

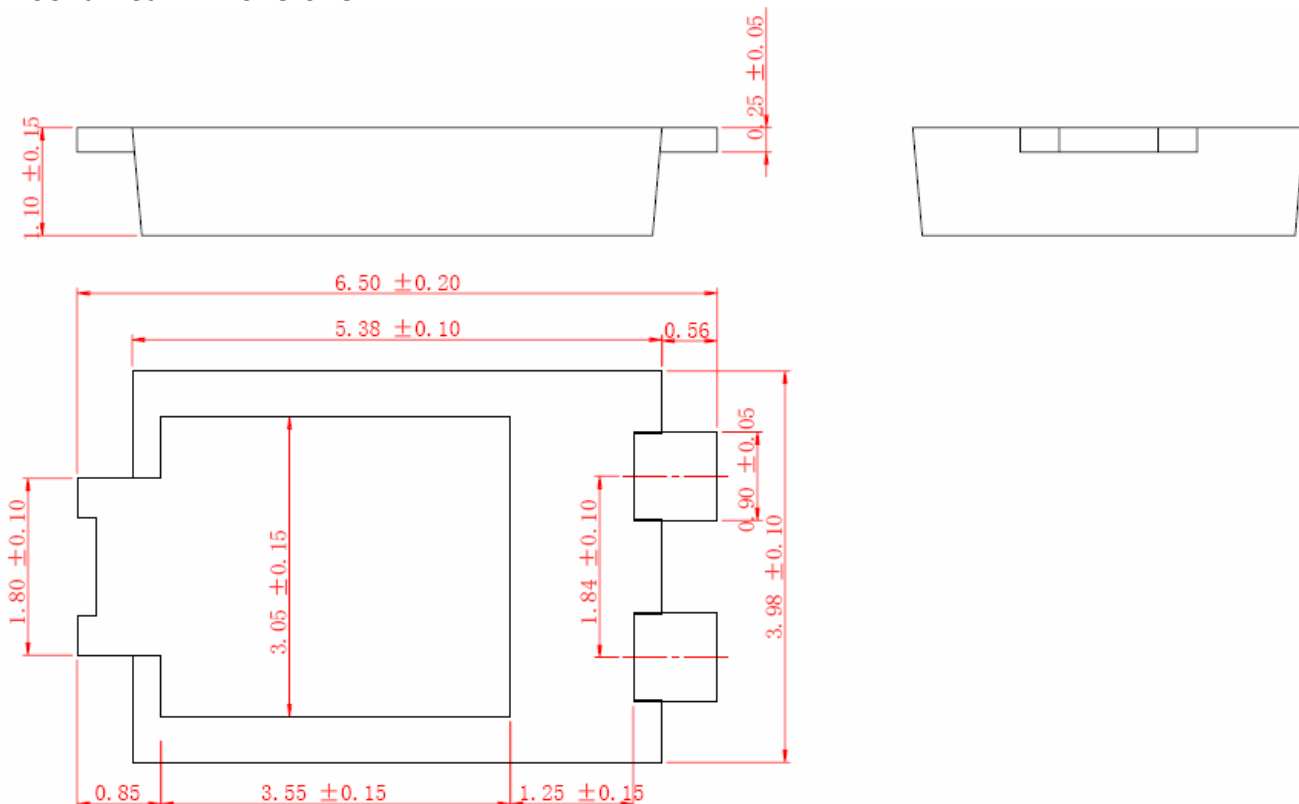
- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration

Features:

- Designed as Bypass Diodes for Solar Panels
- High Forward Surge Capability
- Ultra Low Forward Voltage Drop
- Excellent High Temperature Stability
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

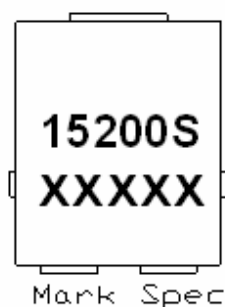


Mechanical Dimensions: In mm



TO-277B

Marking Diagram:



Where XXXXX is YYWWL

15 = Forward Current (15A)
200 = Reverse Voltage (200V)
S = Device Type
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL: 94V-0

Ordering Information:

Device	Package	Shipping
MBR15200S	TO-277B (Pb-Free)	5000pcs/ reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	200	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 136^\circ\text{C}$, rectangular wave form	15	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	250	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop	V_{F1}	@ 15A, Pulse, $T_J = 25\text{ }^{\circ}\text{C}$	0.92	V
	V_{F2}	@ 15A, Pulse, $T_J = 125\text{ }^{\circ}\text{C}$	0.76	V
Reverse Current	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25\text{ }^{\circ}\text{C}$	1.0	mA
	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125\text{ }^{\circ}\text{C}$	10	mA
Junction Capacitance (per leg)	C_T	@ $V_R = 5\text{V}$, $T_C = 25\text{ }^{\circ}\text{C}$ $f_{\text{SIG}} = 1\text{MHz}$	400	pF
Voltage Rate of Change	dv/dt	-	10,000	V/ μs

* Pulse Width < 300 μs , Duty Cycle < 2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +200	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-	-55 to +200	$^{\circ}\text{C}$
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	DC operation	25	$^{\circ}\text{C/W}$
Approximate Weight	wt	-	0.08	g
Case Style	TO-277B			

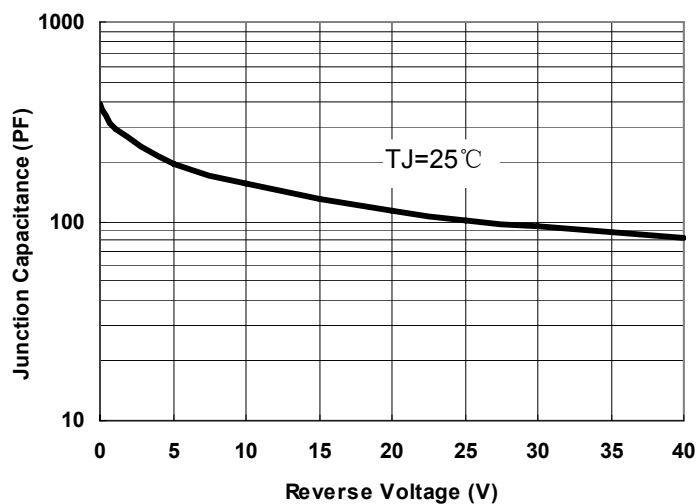


Fig.1-Typical Junction Capacitance

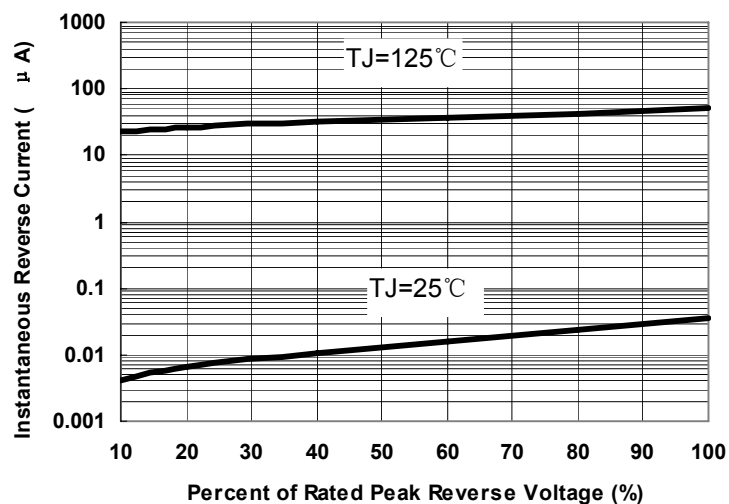


Fig.2-Typical Reverse Characteristics

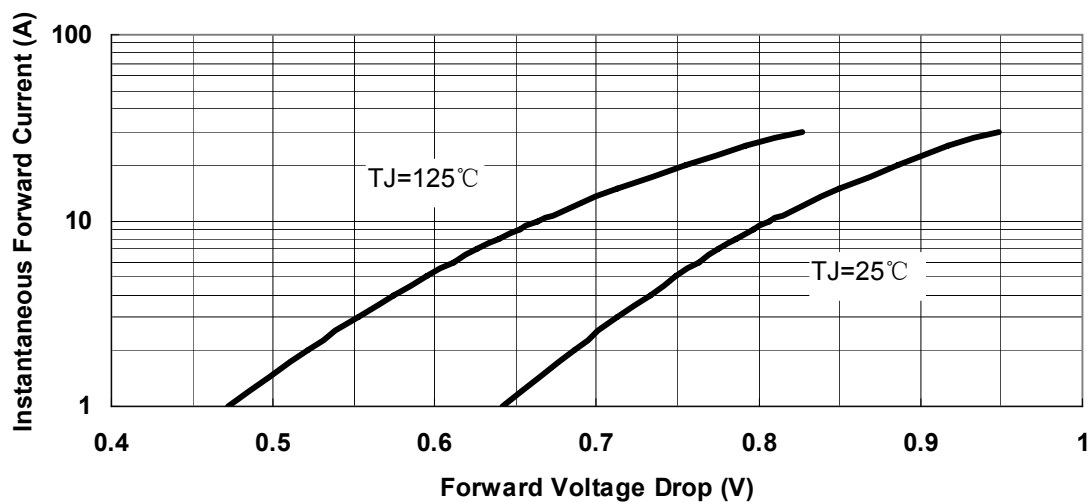


Fig.3-Typical Instantaneous Forward Voltage Characteristics

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