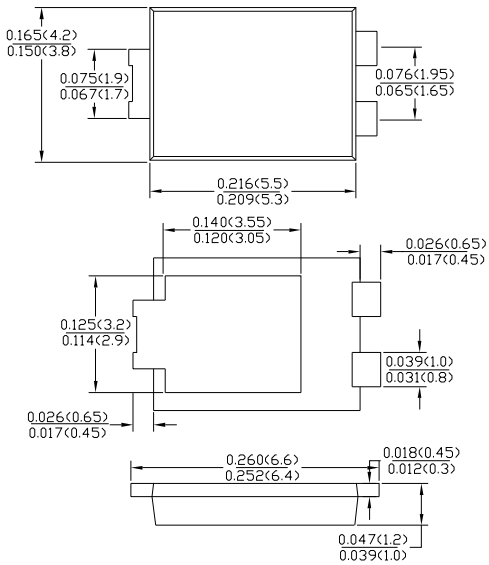
MBR1045ULPS

SCHOTTKY BARRIER RECTIFIER

Features

- Bypass Diodes for Solar Panels
- Maximum Junction Temperture 200ºC
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Foward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability

TO-277



Mechanical Data

- Case:TO-277 Molded Plastic "Green" Molding Compound
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.093 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS/Lead Free Version

RoHS COMPLIANT

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	MBR1045ULPS	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	45	V
RMS Reverse Voltage	$V_{R(RMS)}$	32	V
Average Rectified Output Current (Note 1)	I_O	10.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150	A
Forward Voltage Drop @I_F = 10A,Tj = 25°C	V_{FM}	0.53	V
Peak Reverse Current At Rated DC Blocking Voltage	@V_F = 45V , Tj = 25°C @V_F = 45V, Tj = 100°C	I_{RM}	0.3 15	mA
Typical Thermal Resistance Junction to Ambient	(Note 2) (Note 3)	$R_{\theta JA}$	73 31	°C/W
Operating Temperature Range	@V_R ≤ 80% V_{RRM} DC Forward Mode	T_j	-55 to +150	°C
Storage Temperature Range		T_{STG}	-55 to +1	°C

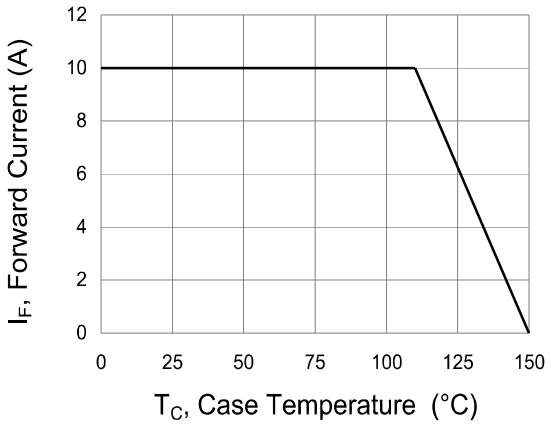


Fig. 1 Forward Power Dissipation

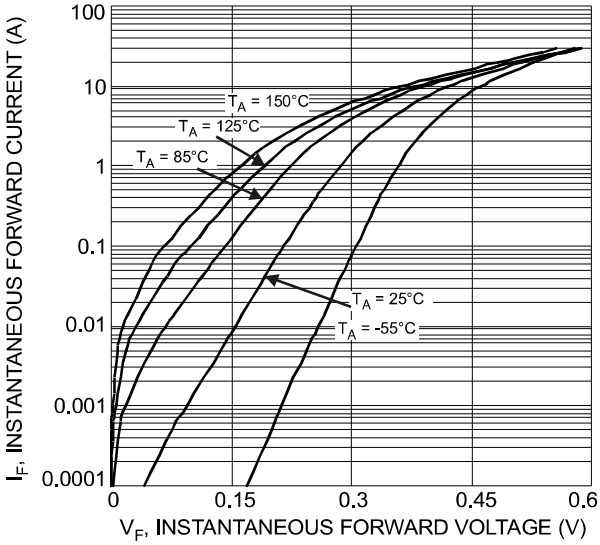


Fig. 2 Typical Forward Characteristics

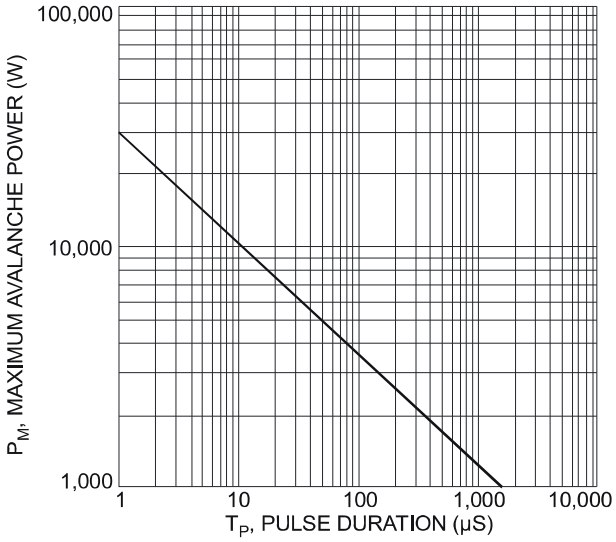


Fig. 3 Maximum Avalanche Power