

MBR120-MBR1100

SCHOTTKY BARRIER RECTIFIER DIODES

VOLTAGE RANGE: 20-100V CURRENT: 1.0 A

Features

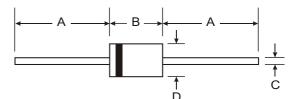
- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications

Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number







DO-41								
Dim	Min	Max						
Α	25.40	—						
В	4.06	5.21						
С	0.71	0.864						
D	2.00	2.72						
All Dimensions in mm								

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

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

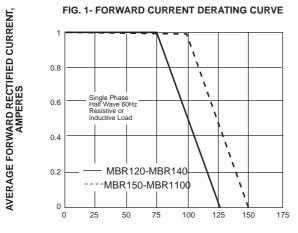
Characteristic	Symbol	MBR120	MBR130	MBR140	MBR150	MBR160	MBR180	MBR1100	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	Vrrm Vrwm Vr	20	30	40	50	60	80	100	V
RMS Reverse Voltage	VR(RMS)	14	21	28	35	42	56	70	V
Average Rectified Output Current $@T_L = 100^{\circ}C$ (Note 1)	lo	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	40							A
Forward Voltage $@I_F = 1.0A$	Vғм	0.50 0.70				70 0.85		5	V
Peak Reverse Current $@T_A = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_A = 100^{\circ}C$	I RM	0.5 10							mA
Typical Junction Capacitance (Note 2)	Cj	110 80					pF		
Typical Thermal Resistance (Note 1)	R∂jl R∂ja	15 50							°C/W
Operating and Storage Temperature Range	Тj, Tsтg	-65 to +150							°C

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

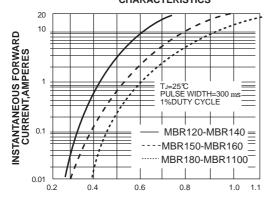


RATINGS AND CHARACTERISTIC CURVES MBR120 THRU MBR1100



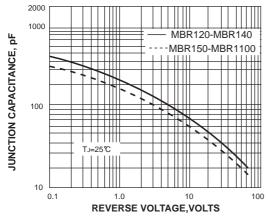
AMBIENT TEMPERATURE, °C

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD VOLEAGE, VOLTS

FIG. 5-TYPICAL JUNCTION CAPACITANCE



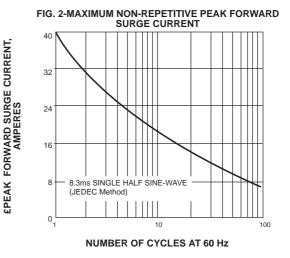


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

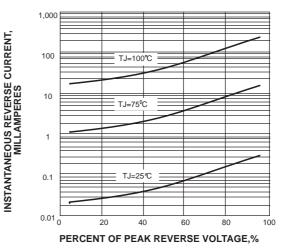
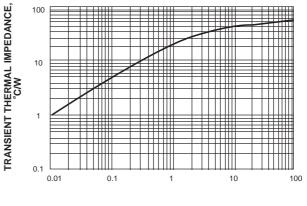


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



t,PULSE DURATION,sec.