

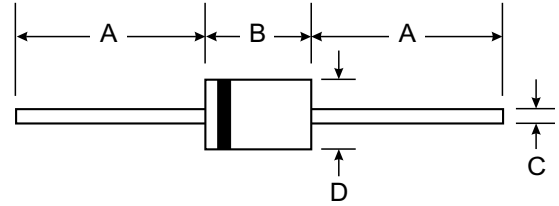
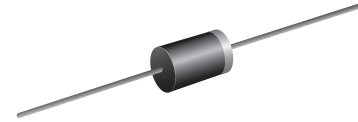
VOLTAGE RANGE: 20 - 100V
CURRENT: 5.0 A

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-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



DO-201AD		
Dim	Min	Max
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
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%.

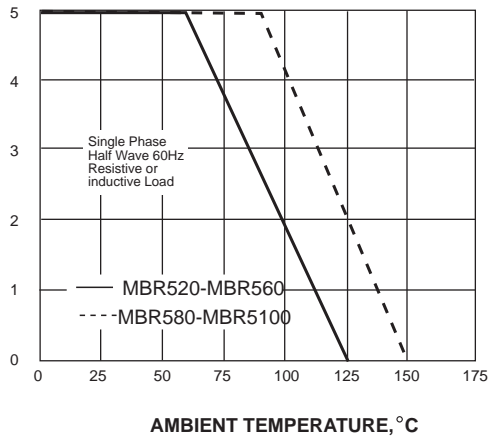
Characteristic	Symbol	MBR520	MBR530	MBR540	MBR550	MBR560	MBR580	MBR5100	Unit	
Peak Repetitive Reverse Voltage	V _{RRM}								V	
Working Peak Reverse Voltage	V _{RWM}	20	30	40	50	60	80	100		
DC Blocking Voltage	V _R									
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	35	42	56	70	V	
Average Rectified Output Current <small>@T_L = 100°C (Note 1)</small>	I _o	5.0							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 <small>@I_F = 5.0A</small>	V _{FM}	0.55			0.70		0.85		V	
Peak Reverse Current <small>@T_A = 25°C</small> At Rated DC Blocking Voltage <small>@T_A = 100°C</small>	I _{RM}	0.5				50				mA
Typical Junction Capacitance (Note 2)	C _j	500			400				pF	
Typical Thermal Resistance (Note 1)	R _{θJA}	10								°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-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 MBR520 THRU MBR5100

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

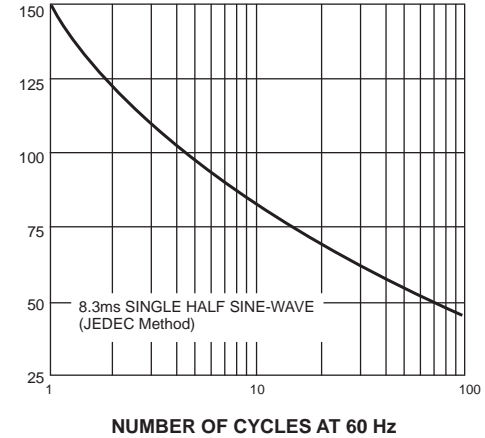
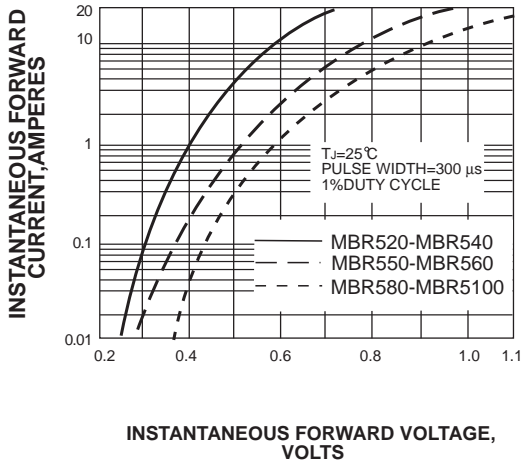
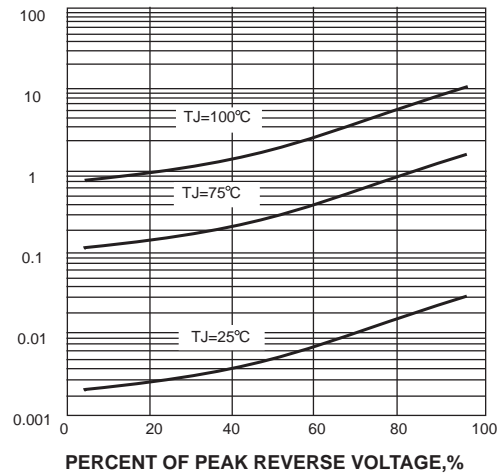


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



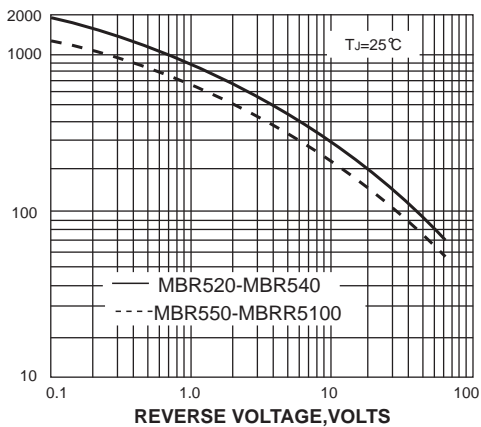
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

