

MBR520~MBR5200

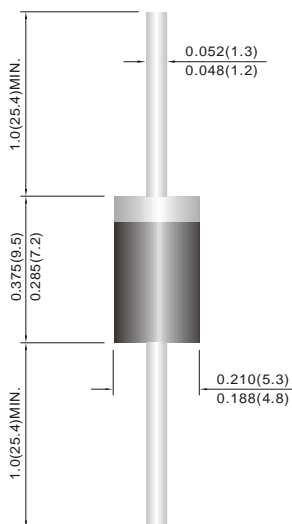
SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 200 Volts CURRENT 5 Amperes



DO-201AD

Unit : inch(mm)



FEATURES

- Epitaxial Construction
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 150A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: DO-201AD Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode
- Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

PARAMETER	SYMBOL	MBR520	MBR540	MBR550	MBR560	MBR580	MBR590	MBR5100	MBR5150	MBR5200	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	40	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	28	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	50	60	80	90	100	150	200	V
Average Rectified Output Current (See Figure 1)	$I_{F(AV)}$	5.0									A
Non-Repetitive Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100									A
Forward Voltage at 5.0A (Notes 3)	V_F	0.55	0.7		0.85			0.95		V	
Peak Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	I_R	0.2					20				mA
Typical Thermal Resistance (Notes 2) (Notes 1) (Notes 1)	$R_{\theta JA}$ $R_{\theta JL}$ $R_{\theta JC}$	50					15				°C / W
		12									
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +125					-55 to +150				°C

NOTES:

1. Measured at ambient temperature at a distance of 9.5mm from the case
2. Minimum Pad Area
3. Pulse test : 300µs pulse width, 1% duty cycle

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RATING AND CHARACTERISTIC CURVES

