



MBRS1100

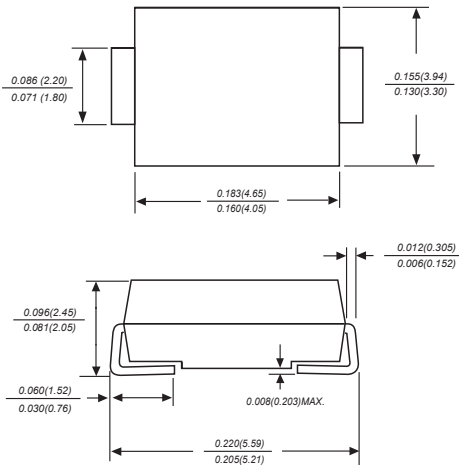
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 100 Volts

Forward Current - 1.0 Ampere

SMB

DO-214AA



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic body

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.005 ounce, 0.138 grams

Marking: B100

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

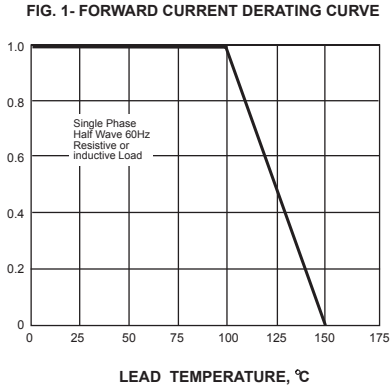
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	MBRS1100	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	100	VOLTS
Maximum RMS voltage	V_{RMS}	70	VOLTS
Maximum DC blocking voltage	V_{DC}	100	VOLTS
Maximum average forward rectified current at T_L (see fig.1)	$I_{(AV)}$	1.0	Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0	Amps
Maximum instantaneous forward voltage at 1.0A	V_F	0.85	Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	0.1 20.0	mA
Typical junction capacitance (NOTE 1)	C_J	80	pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	22.0	°C/W
Operating junction temperature range	T_J	-65 to +150	°C
Storage temperature range	T_{STG}	-65 to +150	°C

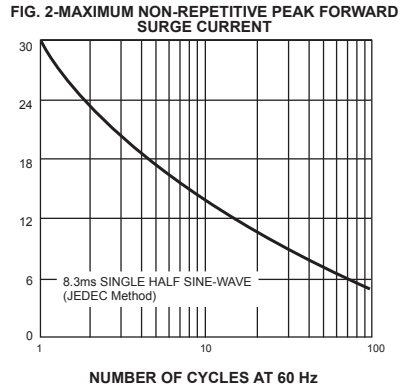
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES MBR51100

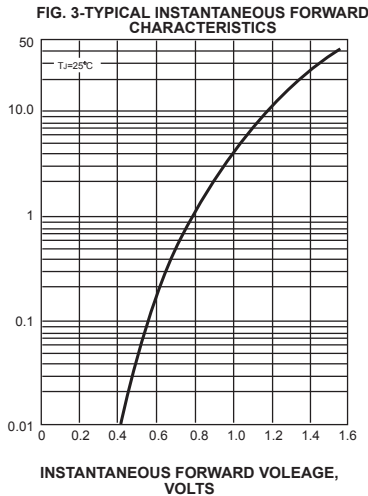
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES



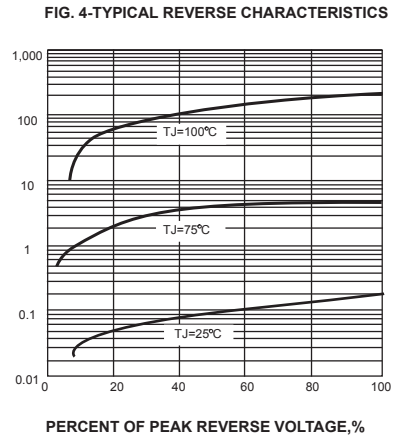
PEAK FORWARD SURGE CURRENT,
AMPERES



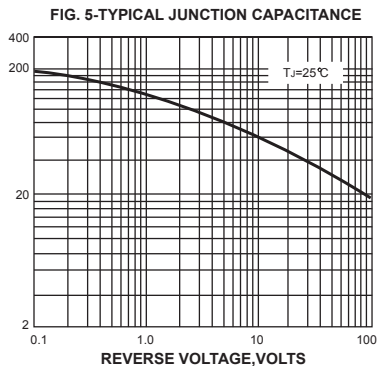
INSTANTANEOUS FORWARD
CURRENT,AMPERES



INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE,
°C/W

