



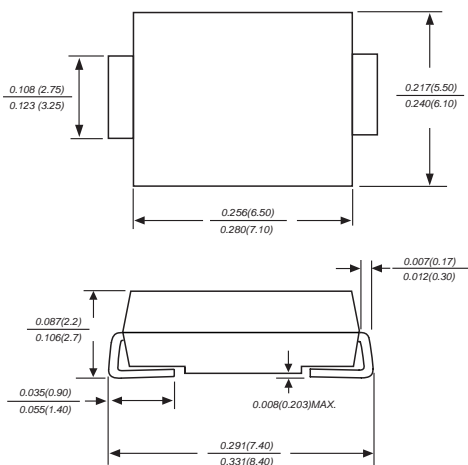
# MBRS320 THRU MBRS3200

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current - 3.0 Amperes

SMC

DO-214AB



### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ 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-214AB molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.008 ounce, 0.217 grams

Dimensions in inches and (millimeters)

### 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	MBRS 320	MBRS 330	MBRS 340	MBRS 350	MBRS 360	MBRS 380	MBRS 3100	MBRS 3150	MBRS 3200	UNITS	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	VOLTS	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	VOLTS	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	VOLTS	
Maximum average forward rectified current at $T_L$ (see fig.1)	$I_{(AV)}$	3.0									Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100.0									Amps	
Maximum instantaneous forward voltage at 3.0A	$V_F$	0.55		0.70		0.85					Volts	
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	0.5					0.1					mA
Typical junction capacitance (NOTE 1)	$C_J$	300										pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	55.0										°C/W
Operating junction temperature range	$T_J$	-65 to +125			-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 0.6x0.6" (16x16mm) copper pad areas

# RATINGS AND CHARACTERISTIC CURVES MBRS320 THRU MBRS3200

