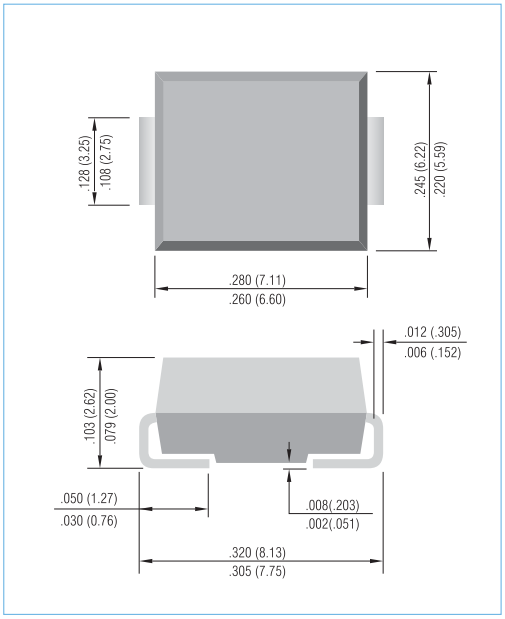
MB54~MB520

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 40 to 200 Volts **CURRENT** 5.0 Amperes

SMC / DO-214AB Unit: inch (mm)



FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- Low power loss,high efficiency
- High surge capacity
- 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: JEDEC DO-214AB molded plastic
- Terminals:Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes positive end (cathode)
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.0082 ounce, 0.2325 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

PARAMETER	SYMBOL	MB54	MB54A	MB55	MB56	MB58	MB59	MB510	MB515	MB520	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	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(Note 1)	V_F	0.70		0.74		0.80			0.9		V
Peak Reverse Current T_J=25°C at Rated DC Blocking Voltage T_J=100°C	I_R	0.05 10									mA
Typical Thermal Resistance(Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	17 55									°C / W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150	-65 to +175								°C

NOTES:

1. Pulse Test with PW =300μsec, 1% Duty Cycle.
2. Mounted on P.C. Board with 14mm^2 (.013mm thick) copper pad areas.

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RATING AND CHARACTERISTIC CURVES

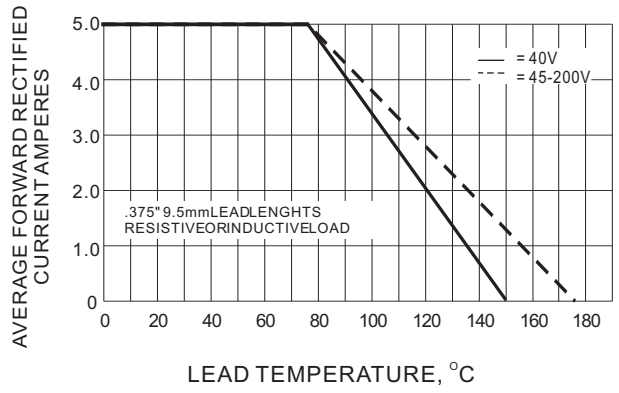


Fig.1- FORWARD CURRENT DERATING CURVE

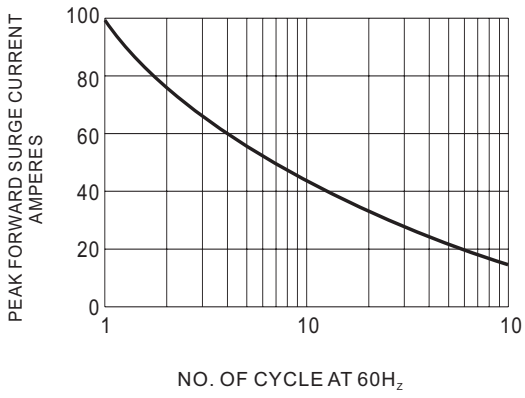


Fig.2 -MAXIMUM NON-REPETITIVE SURGE CURRENT

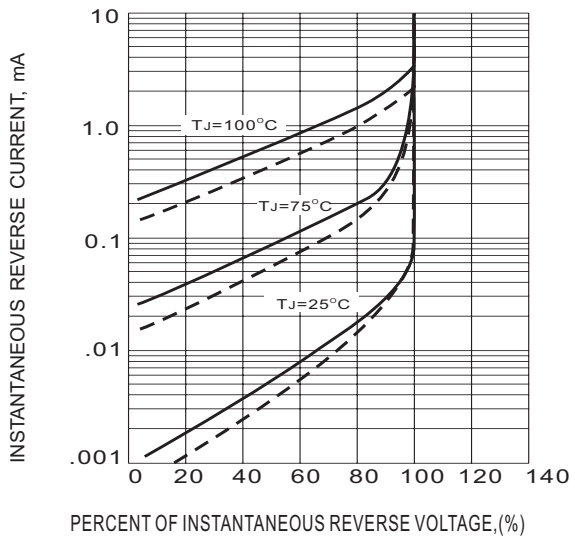


Fig.3-TYPICAL REVERSE CHARACTERISTIC

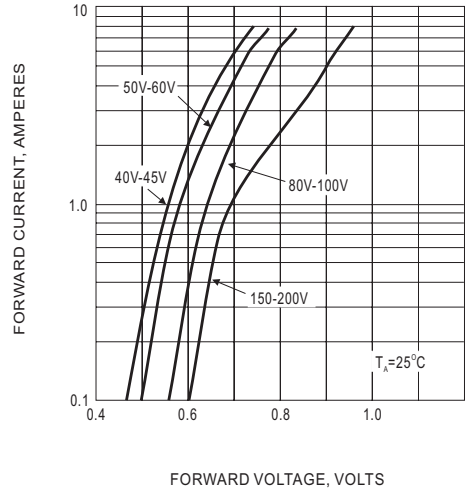
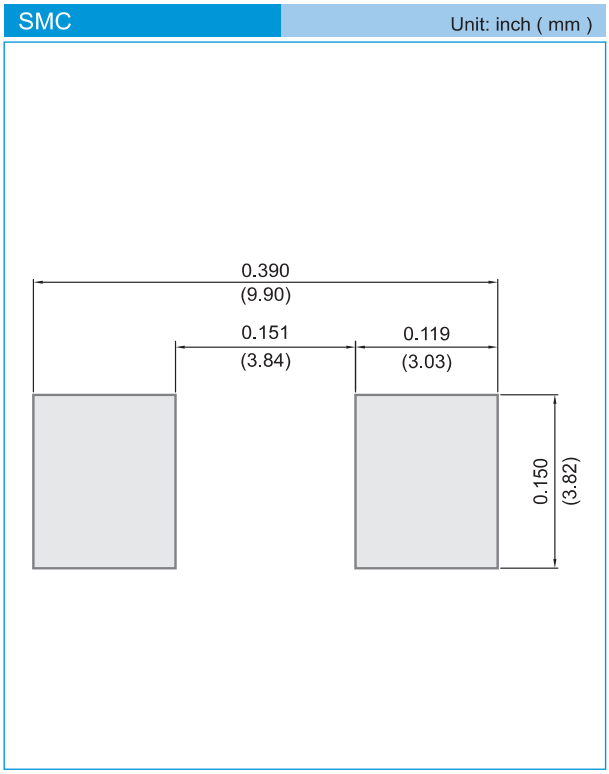


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information

  T/R - 3K per 13" plastic Reel

  T/R - 0.5Kper 7" plastic Reel

LEGAL STATEMENT

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