

SEB0545 & SEB05100

**SMD Schottky Barrier Diodes**

Revision: A

**General Description**

This Schottky diode is for use in low voltage, high frequency rectifier of switching mode power supplier, DC/DC converters and polarity protection application.

- Low power loss, high efficiency
- Low Forward Voltage Drop
- High forward surge capacity

**Features**

- Case: SMA, molded epoxy body
- Terminal: Matte tin plated leads
- Polarity: See mark on body

**Maximum Ratings** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

Parameter	Symbol	SEB0545	SEB05100	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	45	100	V
Maximum RMS voltage	$V_{RMS}$	31	70	V
Maximum DC blocking voltage	$V_{DC}$	45	100	V
Maximum average forward rectifier current	$I_{F(AV)}$	5.0		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	80		A
Operating Junction Temperature Range	$T_J, T_{STG}$	-50 to 150		$^{\circ}\text{C}$

**Electrical Characteristics** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

Parameter	Condition	Symbol	SEB0545	SEB05100	Units
Maximum instantaneous forward voltage	$I_F=5\text{A}$	$V_F$	0.42	0.46	V
Maximum DC reverse current at blocking voltage	$T_C=25^{\circ}\text{C}$	$I_R$	0.5		mA
	$T_C=125^{\circ}\text{C}$		50		

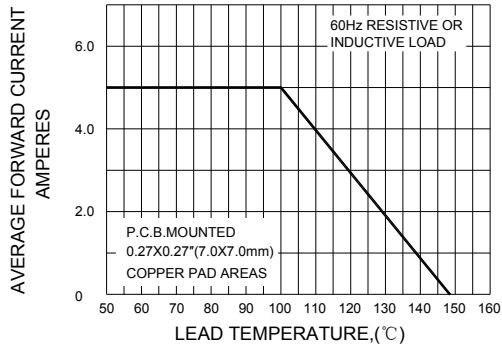
**Thermal Characteristic** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

Parameter	Symbol	SEB0545~ SEB05100	Units
Typical Thermal resistance	$R_{\theta JA}^{(1)}$	75	$^{\circ}\text{C/W}$

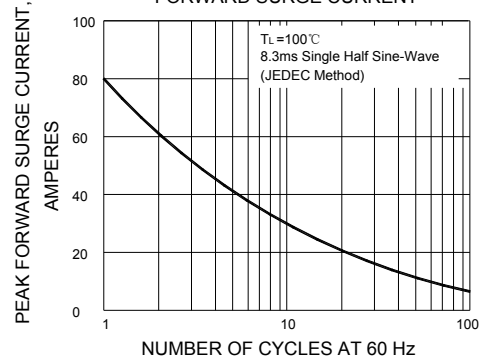
1. P.C.C. Mounted with 0.2"× 0.2"(5.0×5.0mm) copper pads

Ratings and Characteristics Curves ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

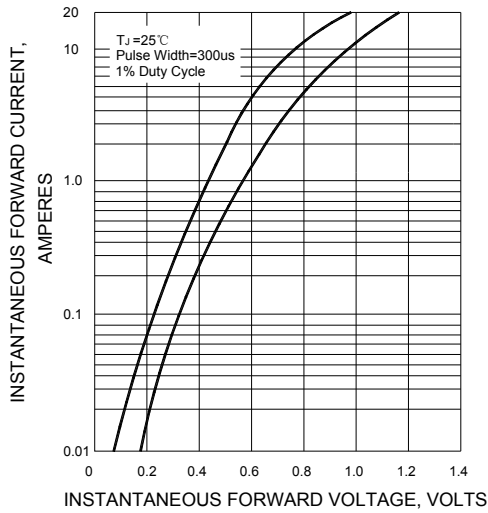
F1G.1-FORWARD CURRENT DERATING CURVE



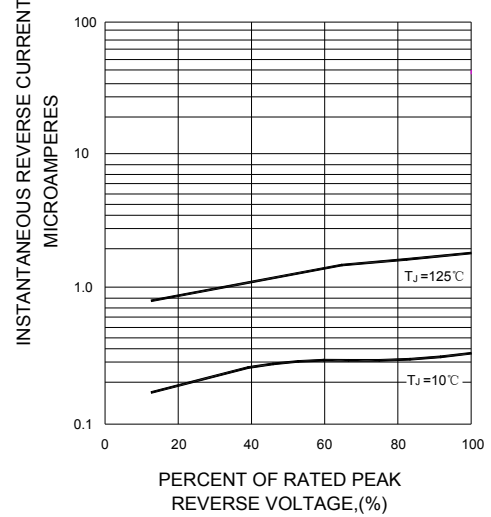
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



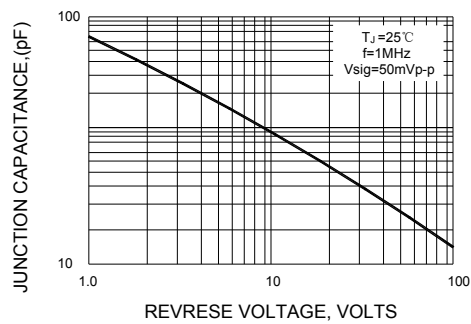
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS

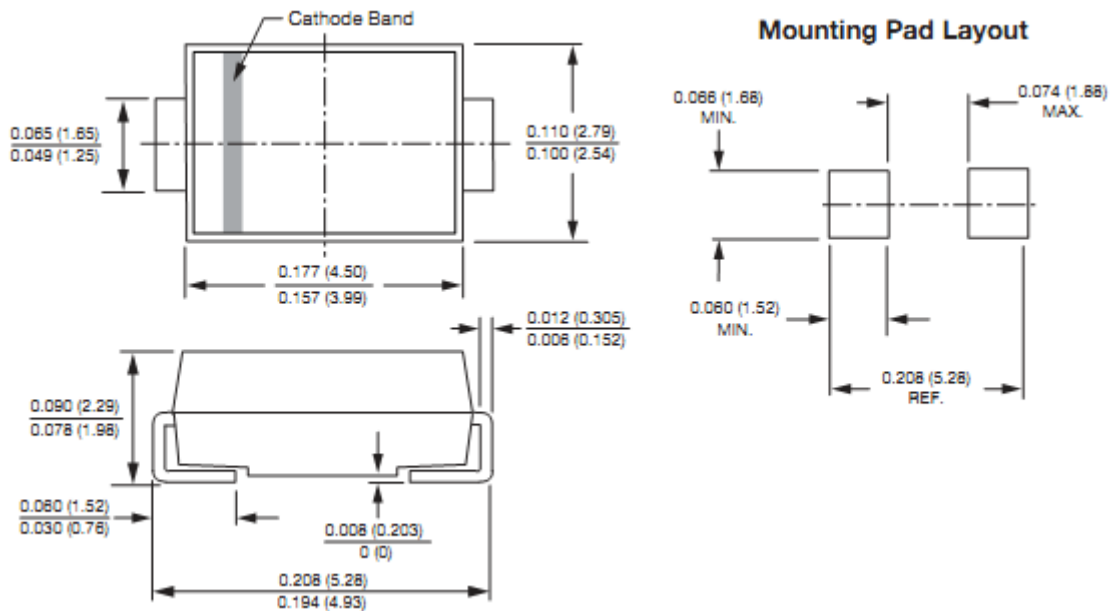


F1G.5-TYPICAL JUNCTION CAPACITANCE



Package Outline Dimensions in inches and millimeters

SMA(DO-214AC)



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