

SEB20100

Schottky Barrier Diodes

Revision: A

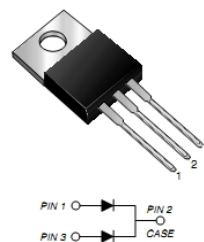
General Description

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: TO-220, 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	SEB20100	Units
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC blocking voltage	V_{DC}	100	V
Maximum average forward rectifier current	$I_{F(AV)}$	20.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150	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	SEB20100	Units
Maximum instantaneous forward voltage	$I_F=20\text{A}$	V_F	0.6	V
Maximum DC reverse current at blocking voltage	$T_C=25^{\circ}\text{C}$	I_R	0.5	mA
	$T_C=125^{\circ}\text{C}$		10	

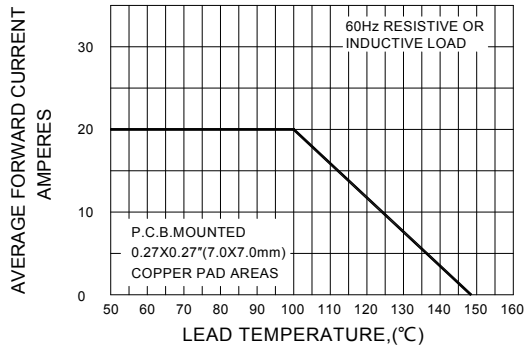
Thermal Characteristic ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	SEB20100	Units
Typical Thermal resistance	$R_{\theta JA}^{(1)}$	1.9	$^{\circ}\text{C/W}$

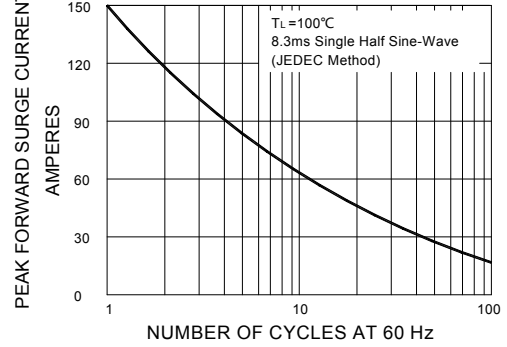
1. Units mounted on recommended PCB 1 oz. pad layout

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

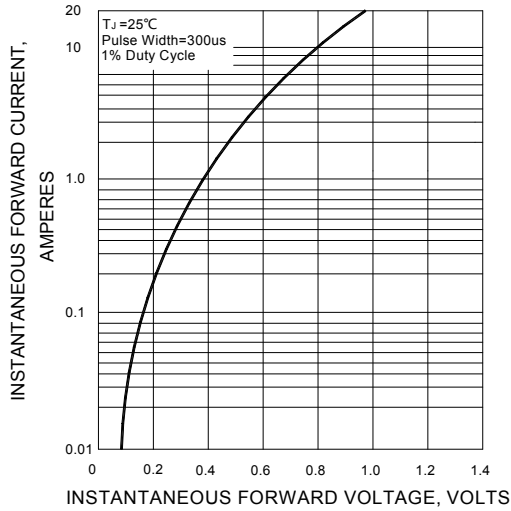
F1G.1-FORWARD CURRENT DERATING CURVE



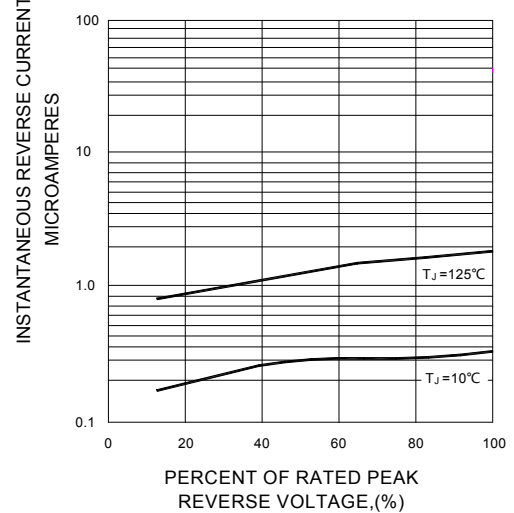
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



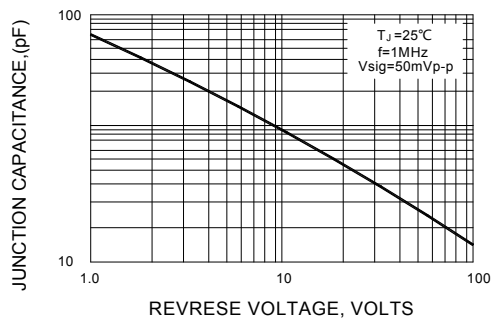
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS

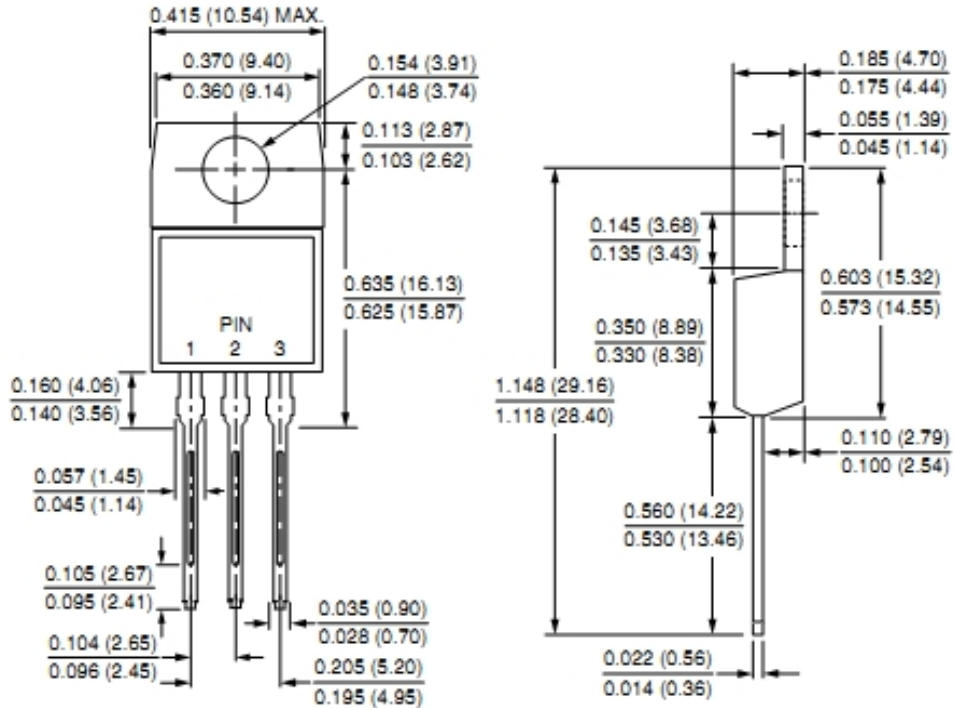


F1G.5-TYPICAL JUNCTION CAPACITANCE



Package Outline Dimensions in inches and millimeters

TO-220AB



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