SHANGHAI SINO-IC MICROELECTRONICS CO., LTD.

Jun 2014

SEB1045,SEB1060

Schottky Barrier Diodes

Revision: A

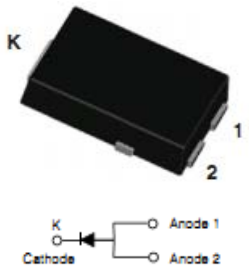
General Description

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-277 molded epoxy body with metal frame
- Terminal: Matte tin plated leads
- Polarity: See mark on body



Maximum Ratings (T_A=25℃ unless otherwise noted)

Parameter	Symbol	SEB1045	SEB1060	Units
Maximum repetitive peak reverse voltage	V_{RRM}	45	60	V
Maximum RMS voltage	V_{RMS}	31	42	V
Maximum DC blocking voltage	V_{DC}	45	60	V
Maximum average forward rectifier current	$I_{F(AV)}$	10		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		℃

Electrical Characteristics (T_A=25℃ unless otherwise noted)

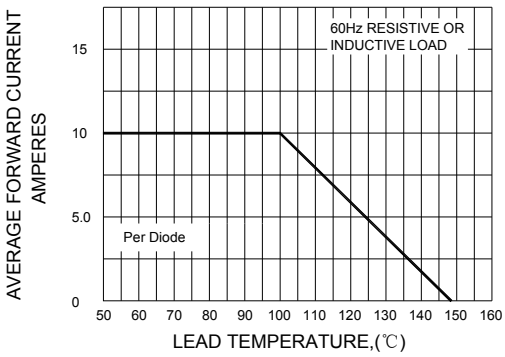
Parameter	Condition	Symbol	SEB1045	SEB1060	Units
Maximum instantaneous forward voltage	IF=10A	V_F	0.49	0.55	V
Maximum DC reverse current at blocking voltage	T_C=25℃	I_R	0.1		mA
	T_C=125℃		5		

Thermal Characteristic (T_A=25℃ unless otherwise noted)

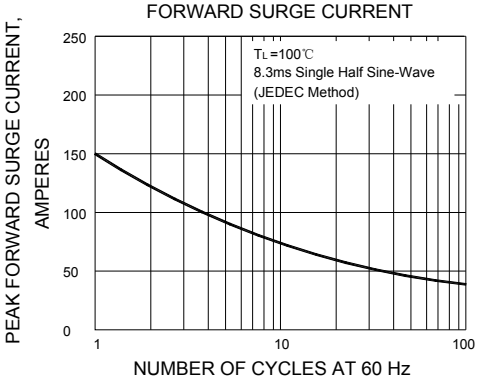
Parameter	Symbol	SEB1045	SEB1060	Units
Typical Thermal resistance	$R_{\theta JA}$ (1)	4.5		℃/W

Ratings and Characteristics Curves (T_A=25℃ unless otherwise noted)

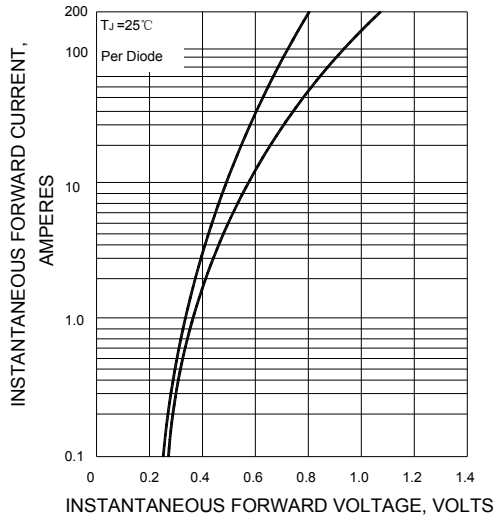
F1G.1-FORWARD CURRENT
DERATING CURVE



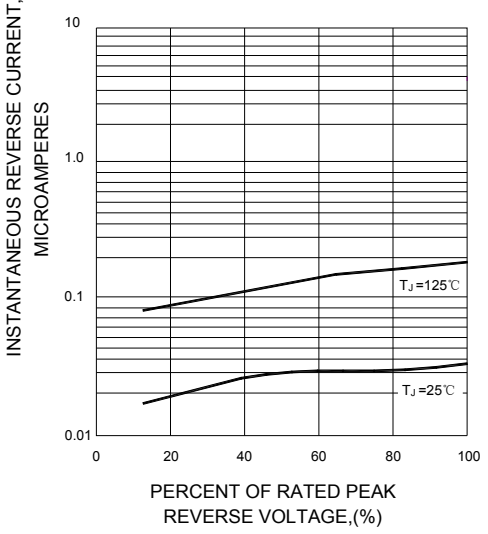
F1G.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT



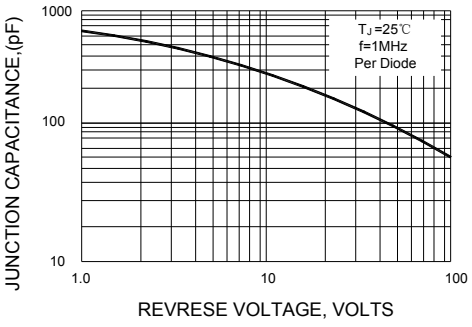
F1G.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS

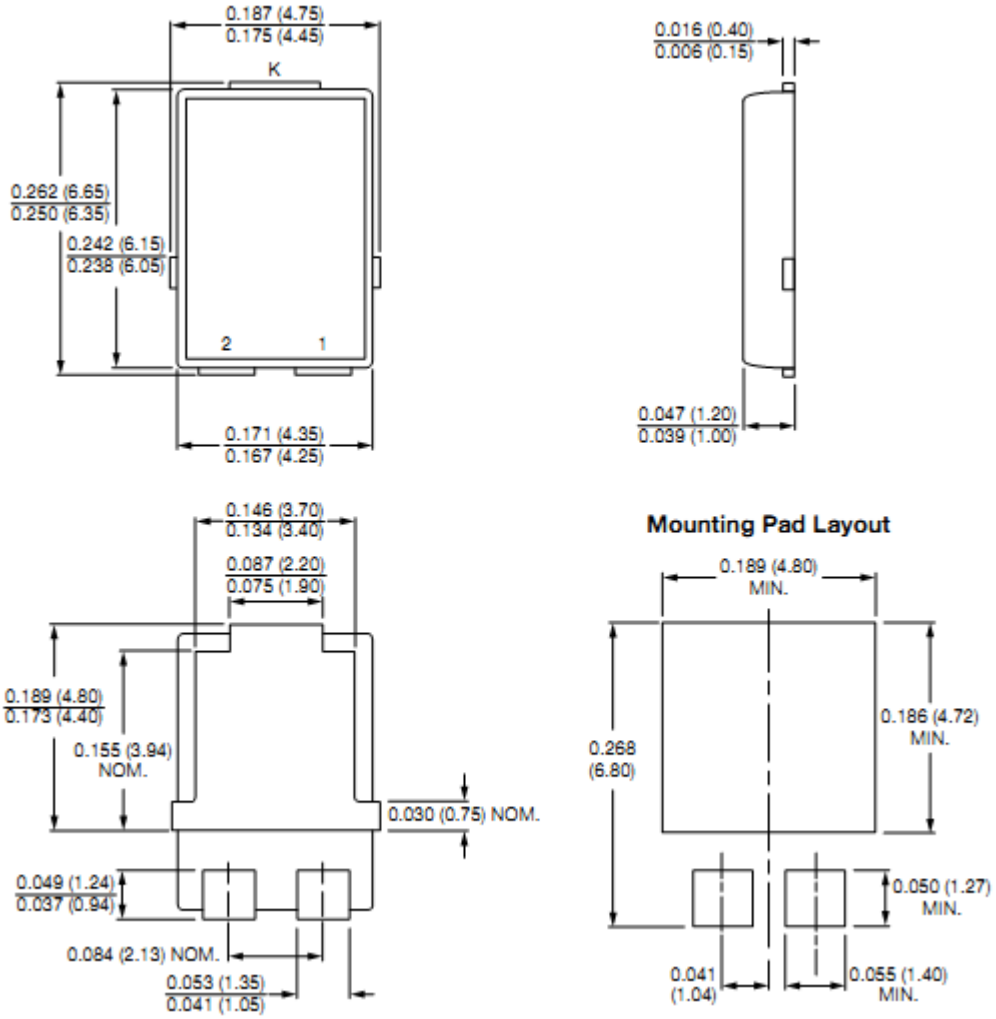


F1G.5-TYPICAL JUNCTION CAPACITANCE



Package Outline Dimensions in inches and millimeters

TO-277



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