

SS32 thru SS310

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	SS32	SS33	SS34	SS35	SS36	SS38	SS39	SS310	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	90	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	63	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	90	100	V
Maximum average forward rectifier current	$I_{F(AV)}$	3.0								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	SS32	SS33	SS34	SS35	SS36	SS38	SS39	SS310	Units
Maximum instantaneous forward voltage	$I_F=3A$	V_F	0.55			0.75		0.85			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								

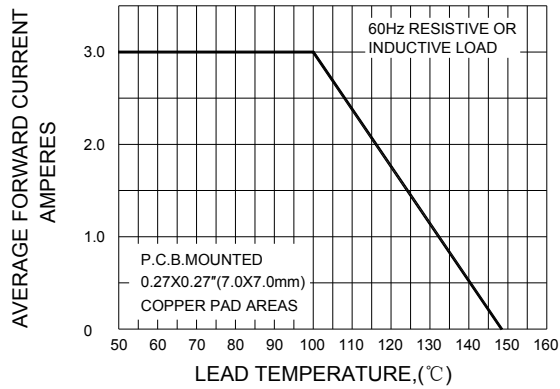
Thermal Characteristic ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	SS32 thru SS310								Units
Typical Thermal resistance	$R_{\theta JA}^{(1)}$	88								$^\circ\text{C/W}$

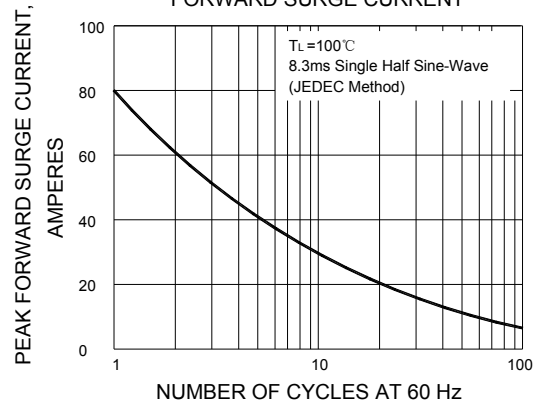
1. P.C.C. Mounted with 0.2"×0.2"(5.0×5.0mm) copper pads

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

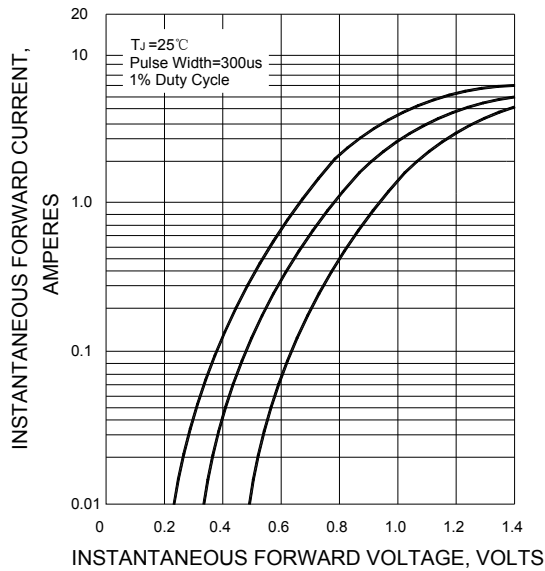
F1G.1-FORWARD CURRENT DERATING CURVE



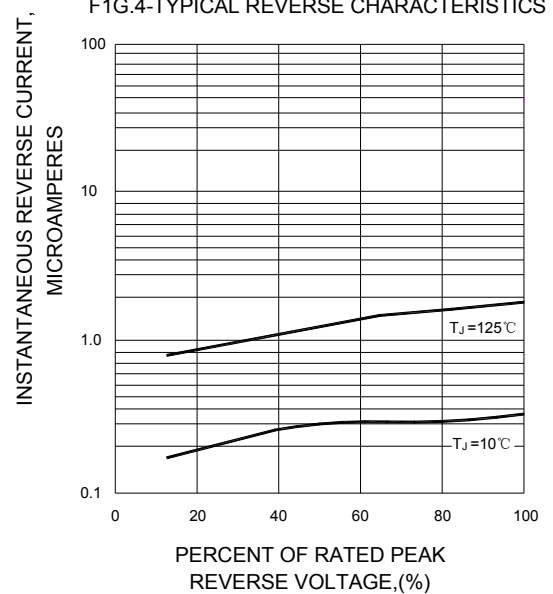
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



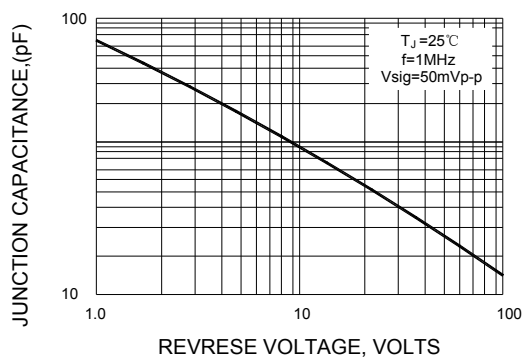
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS

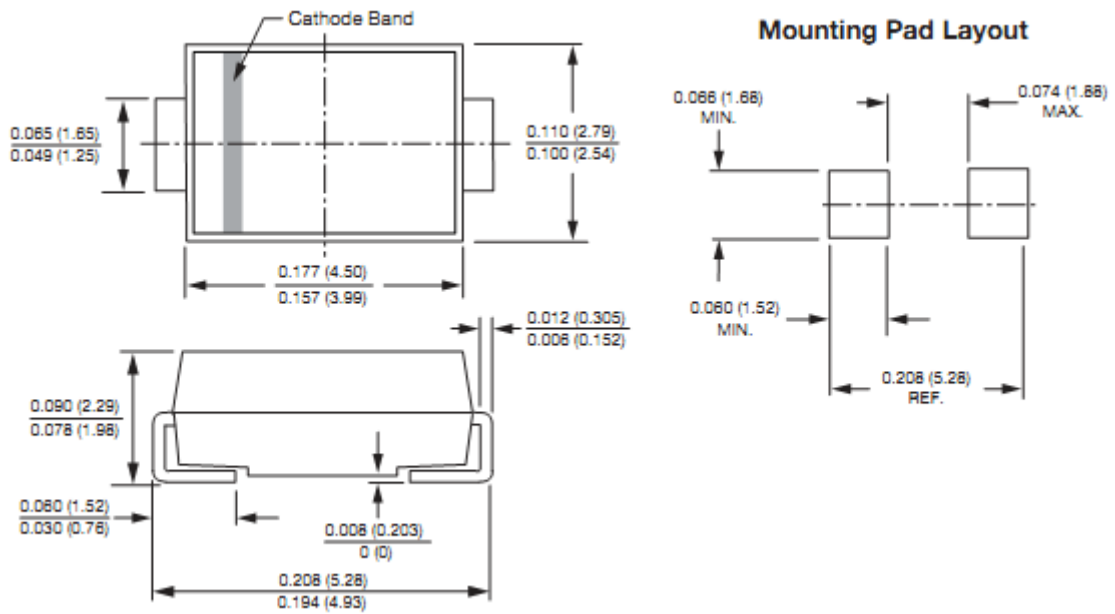


F1G.5-TYPICAL JUNCTION CAPACITANCE



Package Outline Dimensions in inches and millimeters

SMA(DO-214AC)



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