

Schottky Diode



**RoHS
Compliant**



Features:

- For surface mounted application
- Easy pick and place
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low VF
- High surge current capability
- Plastic material
- Epitaxial construction
- High temperature soldering : 260°C/10 seconds at terminals

Mechanical Data

Case : Moulded plastic
 Terminals : Pure tin plated, lead free
 Polarity : Indicated by cathode band
 Packing : 16mm tape per EIA STD RS-481
 Weight : 0.21g

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Type Number	Symbol	SS32	SS33	SS35	SS39	Units
Max. Recurrent Peak Reverse Voltage	V_{RRM}	20	30	50	90	V
Max. RMS Voltage	V_{RMS}	14	21	35	63	
Max. DC Blocking Voltage	V_{DC}	20	30	50	90	
Max. Average Forward Rectified Current at TL	$I_{(AV)}$	3				A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	100		70		
Max. Instantaneous Forward Voltage (Note 1) $I_F = 3A$ at 25°C at 100°C	V_F	0.5 0.4		0.75 0.65	0.85 0.7	V
Max. DC Reverse Current at $T_A = 25^\circ C$ at Rated DC Blocking Voltage at $T_A = 125^\circ C$	I_R	0.5			0.6	mA mA
		20	10	20		
Typical Junction Capacitance (Note 2)	$R_{\theta JL}$	17				°C/W
	$R_{\theta JA}$	55				
Operating Temperature Range	T_J	-55 to +125		-55 to +150		°C
Storage Temperature Range	T_{STG}	-55 to +150				

Notes 2. Pulse Test with PW = 300 μseconds, 1% Duty Cycle.

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Ratings and Characteristic Curves (SS32 THRU SS310)

FIG.1- Maximum Forward Current Derating Curve

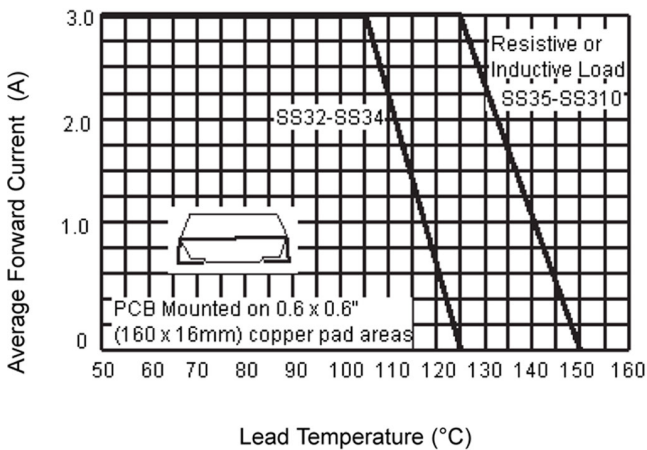


FIG.2- Maximum Non-Repetitive Peak Forward Surge Current

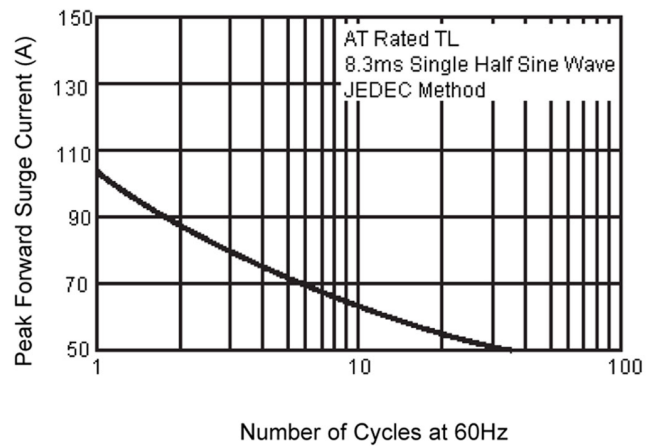


FIG.3- Typical Forward Characteristics

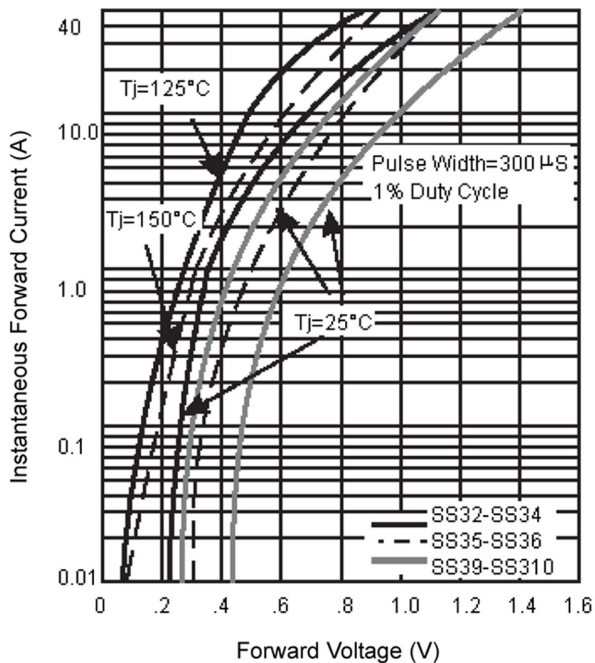
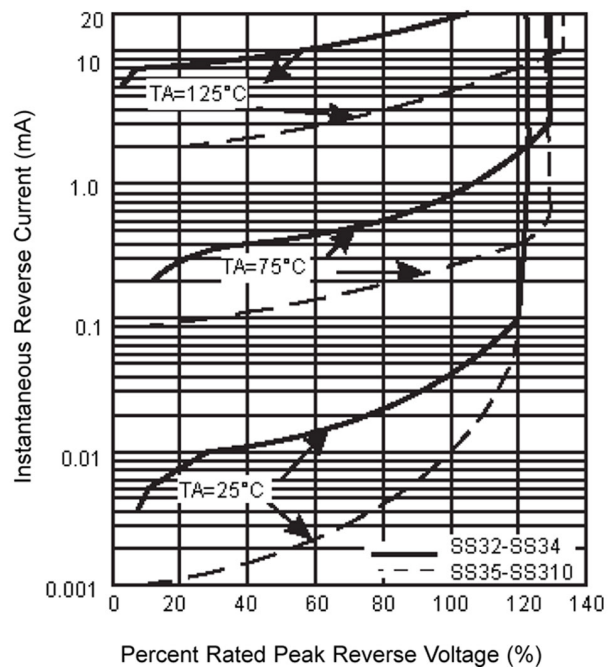


FIG.4- Typical Reverse Characteristics



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FIG.5- Typical Junction Capacitance

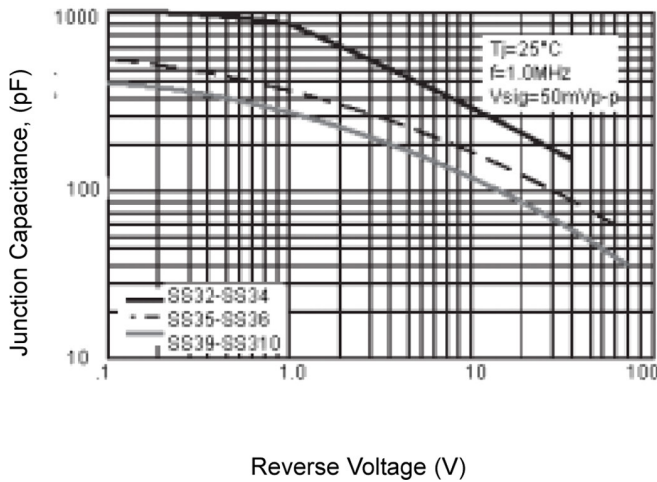
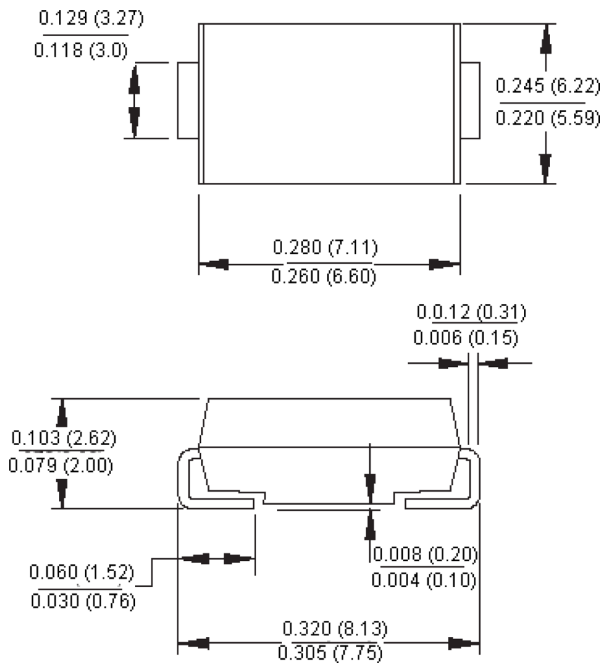
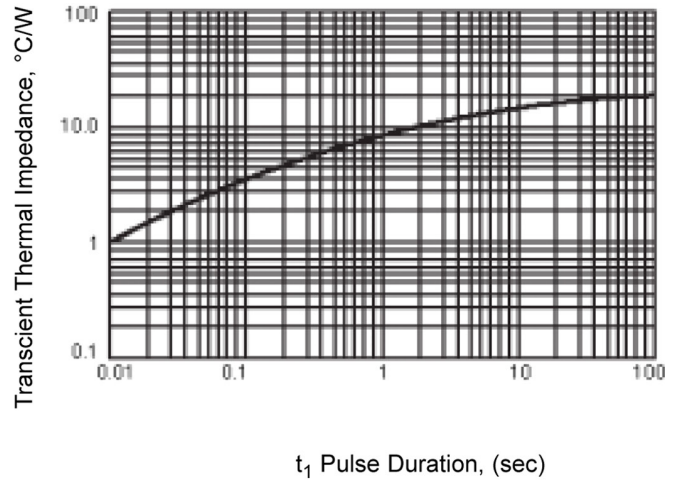


FIG.6- Typical Transient Thermal Impedance



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Diode, Schottky, 3A, 20V	SS32
Diode, Schottky, 3A, 30V	SS33
Diode, Schottky, 3A, 50V	SS35
Diode, Schottky, 3A, 90V	SS39

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