SS3 Series
Controlled Avalanche Power Diodes

RoHS Compliant

Features:

- For surface mounted application.
- Metal to silicon rectifier, majority carrier conduction.
- Low forward voltage drop.
- Easy pick and place.
- High surge current capability.
- Epitaxial construction
- High temperature soldering : 260°C/10 seconds at terminals.

Mechanical Data:

Case : Moulded plastic.
Terminals : Solder plated.
Polarity : Indicated by cathode band.

Max. 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%.

Characteristics	Symbol	SS34	SS36	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	40	60	V
Max. RMS Voltage	V_{RMS}	28	42	
Max. DC Blocking Voltage	V DC	40	60	
Max. Average Forward Rectified Current at T_L	$I_{(AV)}$	3.0		A
Peak forward surge current, 8.3ms single half sine-wave superimposed A on rated load (JEDEC method)	I_{FSM}	100		
Max. Instantaneous Forward Voltage at 3.0A (Note 1)	V_F	0.5	0.75	V
Max. DC Reverse Current at T_A = 25°C at rated DC blocking voltage at T_A = 100°C	I_R	0.5 20	10.0	mA
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	17 55		°C/W
Operating Temperature Range	T_J	-55 to +125	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150		

Notes:
1. Pulse test with PW = 300μsec, 1% duty cycle.
2. Measured on PC Board with 0.6 x 0.6” (16mm × 16mm) copper pad areas.

Ratings and Characteristic Curves:

Figure 1 Maximum Forward Current Derating Curve

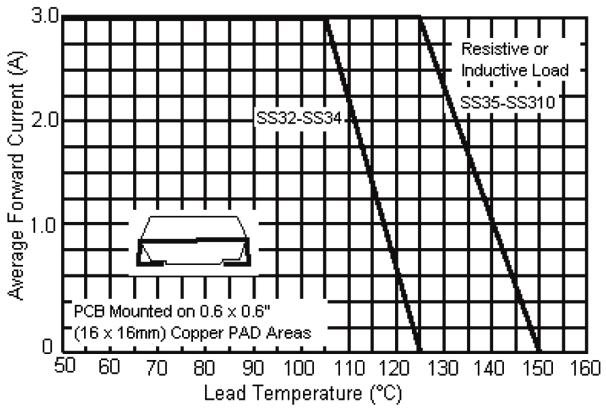


Figure 2 Maximum Non-Repetitive Forward Surge Current

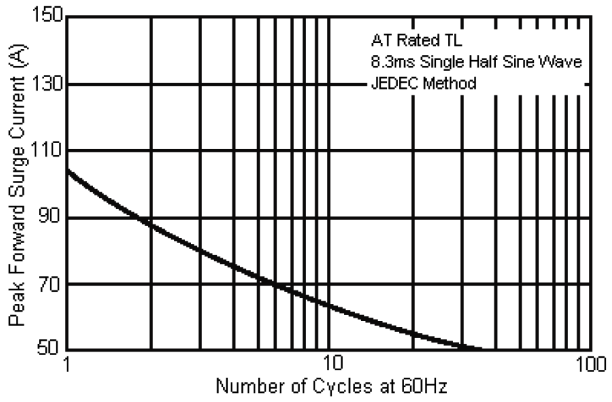


Figure 3 Typical Forward Characteristics

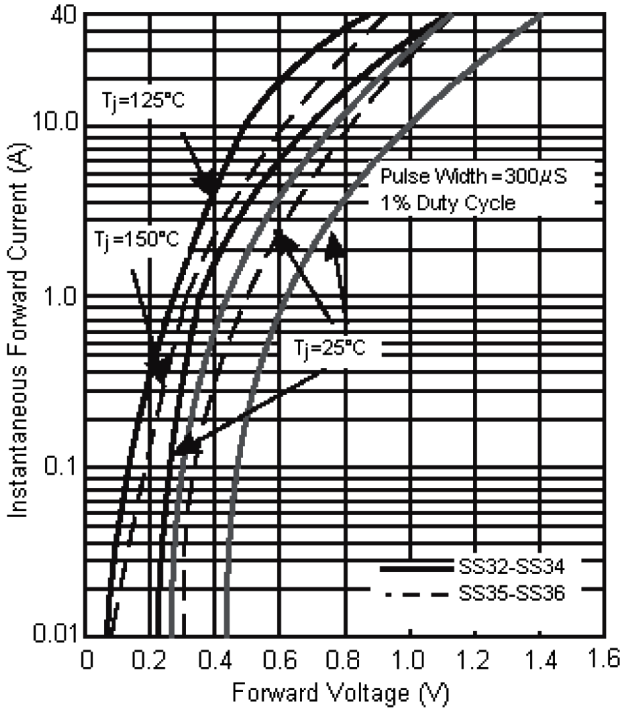


Figure 4 Typical Reverse Characteristics

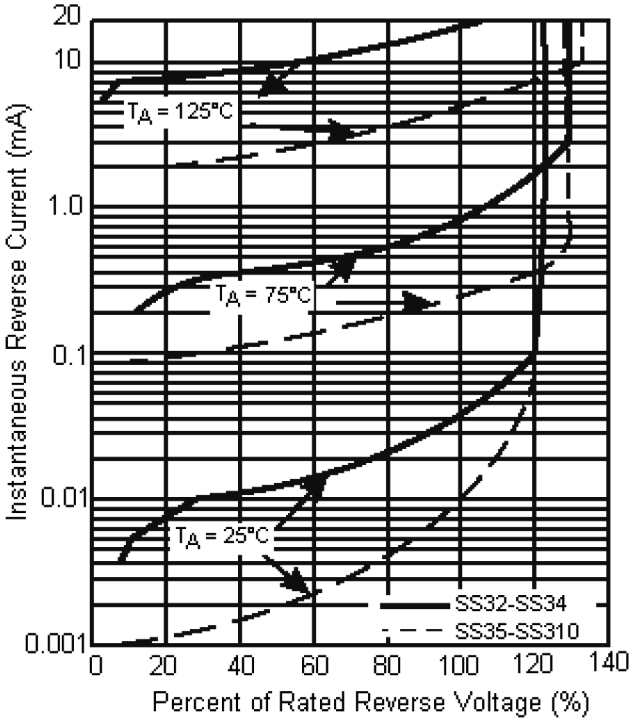


Figure 5 Typical Junction Capacitance

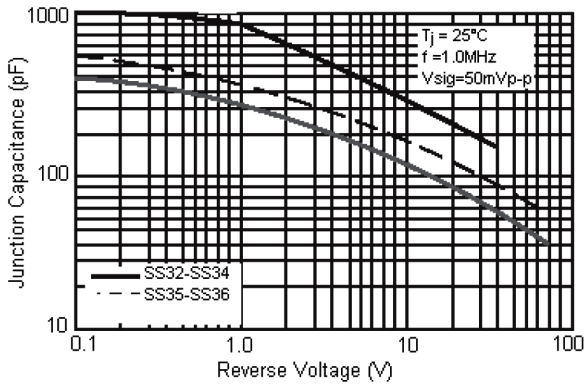
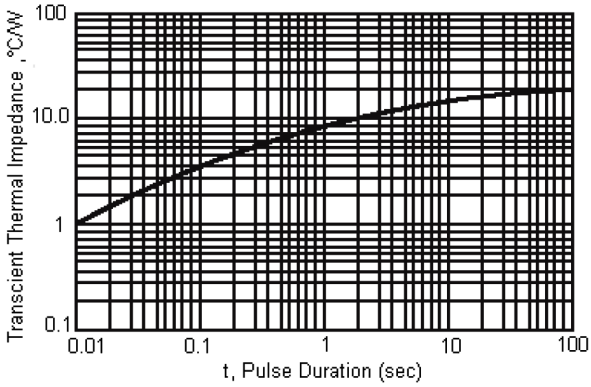
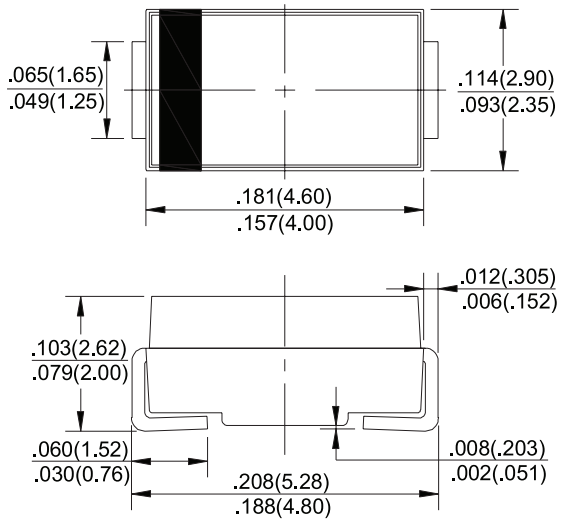


Figure 6 Typical Transient Thermal Impedance



Package Dimensions:

SMA



Dimensions : Inches (Millimetres)

Part Number Table

$I_{F(AV)}$ (A)	T_C (°C)	V_{RRM} (V)	V_{FM} maximum (V)	I_{RM} maximum (mA)	Package	Part Number
3	105	40	0.5	0.5	SMA	SS34
		60	0.75			SS36