

# 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 $T_A = 25^\circ C$ at rated DC blocking voltage at $T_A = 100^\circ C$	$I_R$	20	10.0	mA
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	17		$^\circ C/W$
	$R_{\theta JA}$	55		
Operating Temperature Range	$T_J$	-55 to +125	-55 to +150	$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to +150		

Notes:

1. Pulse test with  $PW = 300\mu sec$ , 1% duty cycle.
2. Measured on PC Board with 0.6 x 0.6" (16mm x 16mm) copper pad areas.

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### Ratings and Characteristic Curves:

Figure 1 Maximum Forward Current Derating Curve

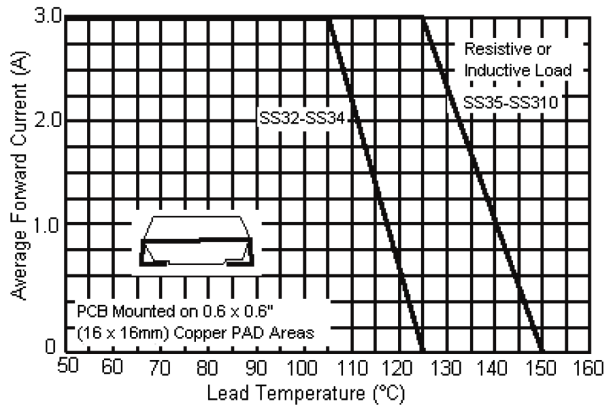


Figure 2 Maximum Non-Repetitive Forward Surge Current

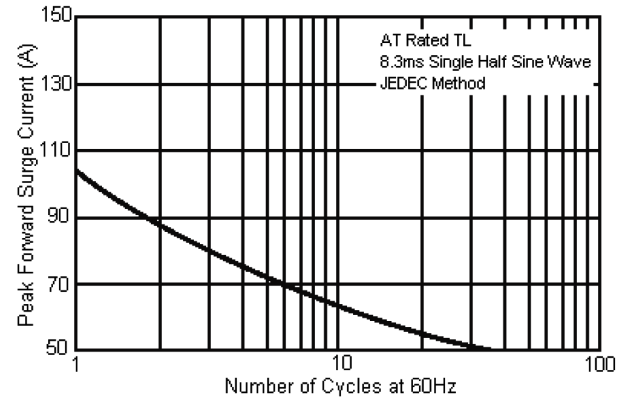


Figure 3 Typical Forward Characteristics

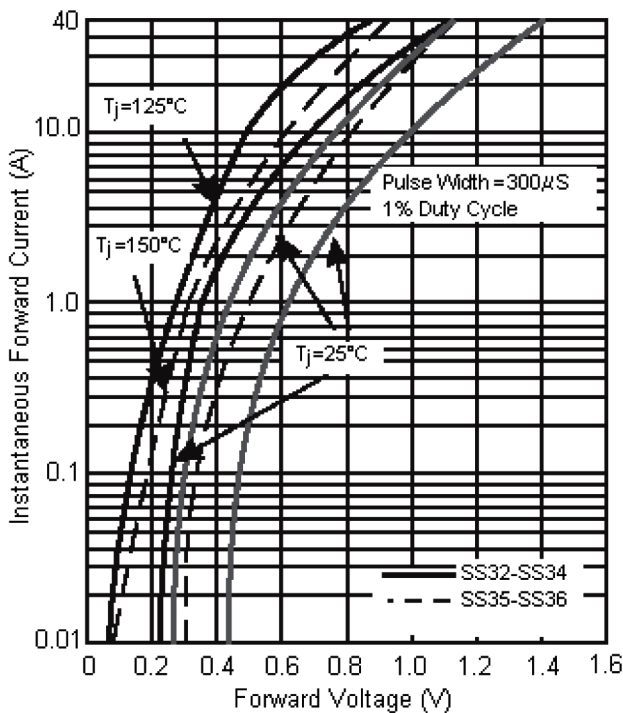
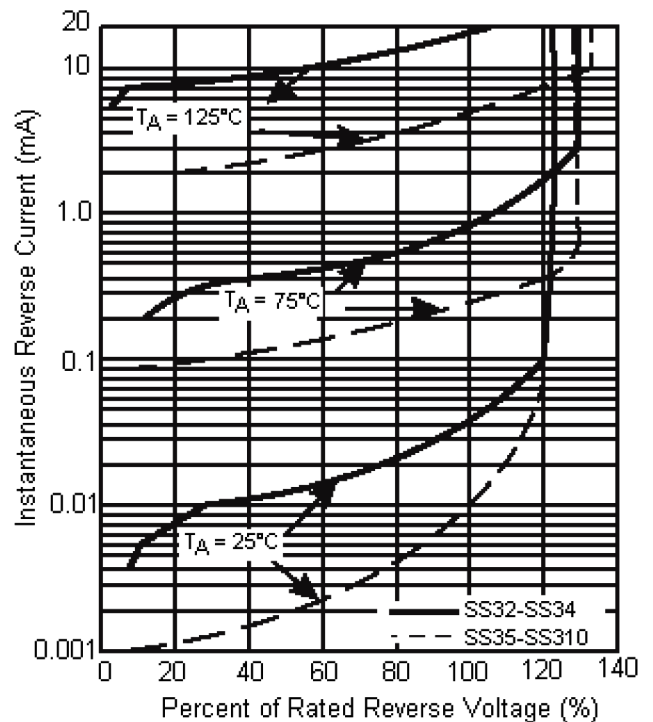


Figure 4 Typical Reverse Characteristics



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Figure 5 Typical Junction Capacitance

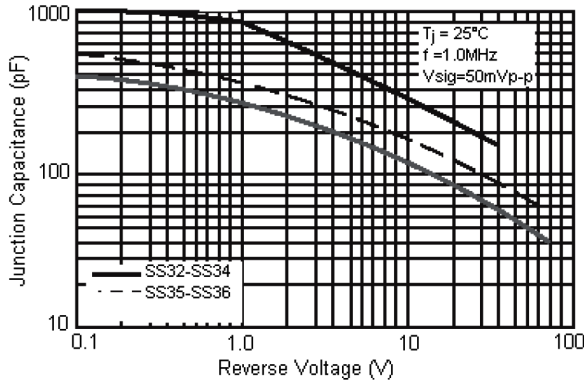
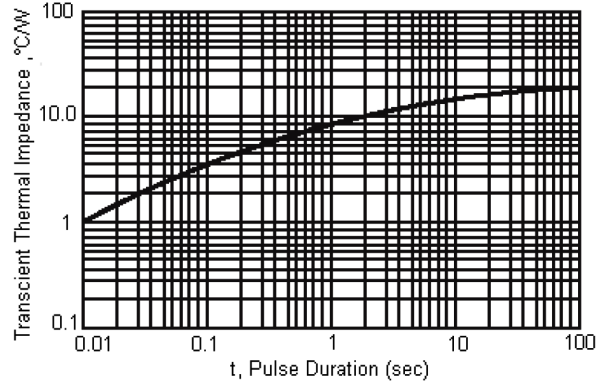
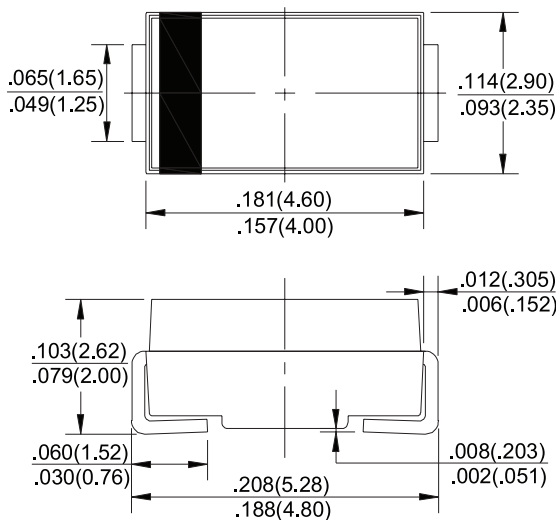


Figure 6 Typical Transient Thermal Impedance



### Package Dimensions:

#### SMA



Dimensions : Inches (Millimetres)

### Part Number Table

IF(AV) (A)	Tc (°C)	VRRM (V)	VFM maximum (V)	IRM maximum (mA)	Package	Part Number
3	105	40	0.5	0.5	SMA	SS34
		60	0.75			SS36

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