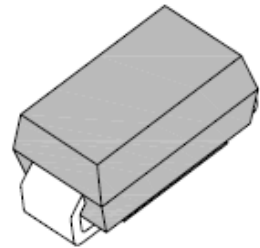


1.0A Surface Mount Fast Recovery Rectifier

Features

- Low profile surface mounted package
- Fast recovery time for high efficiency
- Glass passivated junction
- Plastic package has underwriters laboratory flammability classification 94 V-0
- High temperature soldering: 250 °C / 10 seconds at terminals
- RoHS compliant



SMA



Mechanical Data

Case:	JEDEC DO-214AC molded plastic
Terminals:	Solder plated solderable per MIL-STD-750, Method 2026
Polarity:	cathode end indicated by color band
Weight:	0.002 Ounce, 0.064 gram

Maximum Ratings *(T_{Ambient}=25°C unless noted otherwise)*

Symbol	Parameter	SMA4933	SMA4934	SMA4935	SMA4936	SMA4937	Units
VRRM	Max. Recurrent Peak Reverse Voltage	50	100	200	400	600	V
VRMS	Max. RMS Voltage	35	70	140	280	420	V
VDC	Max. DC Blocking Voltage	50	100	200	400	600	v
Io	Max. Average Forward Output Rectified Current @ TL=50°C	1.0					A
IFSM	Peak Forward Surge Current (Note 1)	30					A
Rθ-JA	Max. Thermal Resistance	105					°C/W
Rθ-JL		32					
TJ, Tstg	Operating Junction and Storage Temperature Range	-55 to 150					°C

1.0A Surface Mount Fast Recovery Rectifier

SMA4933 - SMA4937

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Parameter	SMA4933	SMA4934	SMA4935	SMA4936	SMA4937	Units
V_F	Max. Instantaneous Forward Voltage Drop @ $I_O=1.0A$	1.2					V
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}C$		5.0			μA
		$T_A=125^{\circ}C$		100			
T_{rr}	Max. Recovery Time (Note 2)	200					ns
C_J	Typical Junction Capacitance (Note 3)	10					pF

Notes:

- 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
- Reverse recovery test condition: $I_F=1.0A, V_R=30V, di/dt=50A/\mu s,$ and $I_{rr}=10\% I_R$ (max.) for measurement of T_{rr}
- Measured at 1MHz and applied reverse voltage of 4.0VDC

Typical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Fig.1- Forward Current Derating Curve

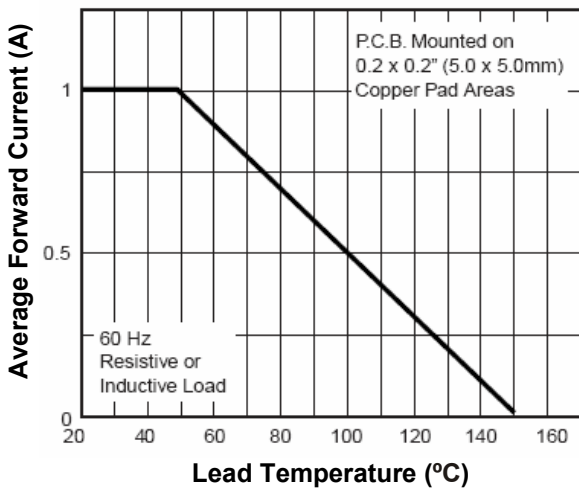
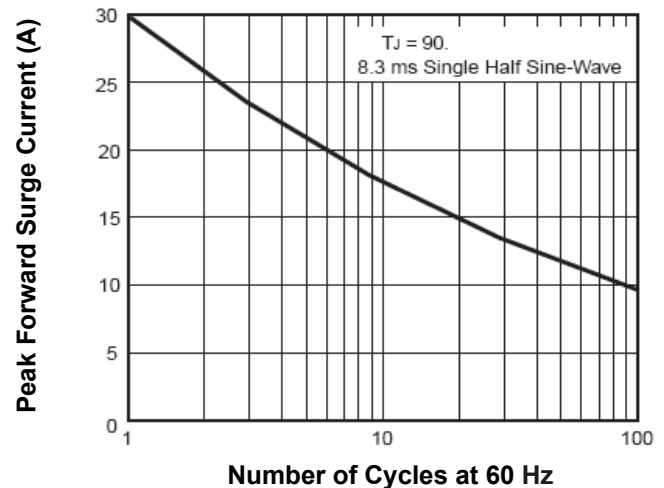


Fig. 2- Maximum Non-Repetitive Peak Forward Surge Current



1.0A Surface Mount Fast Recovery Rectifier

SMA4933 - SMA4937

Fig.3- Typical Instantaneous Forward Characteristics

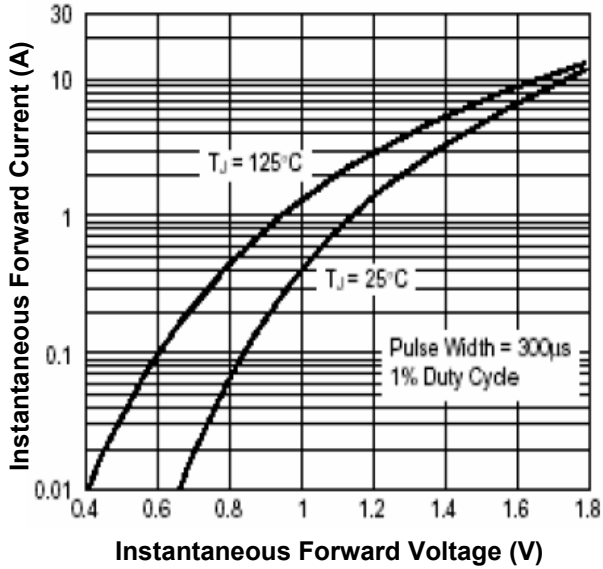


Fig.4- Typical Reverse Characteristics

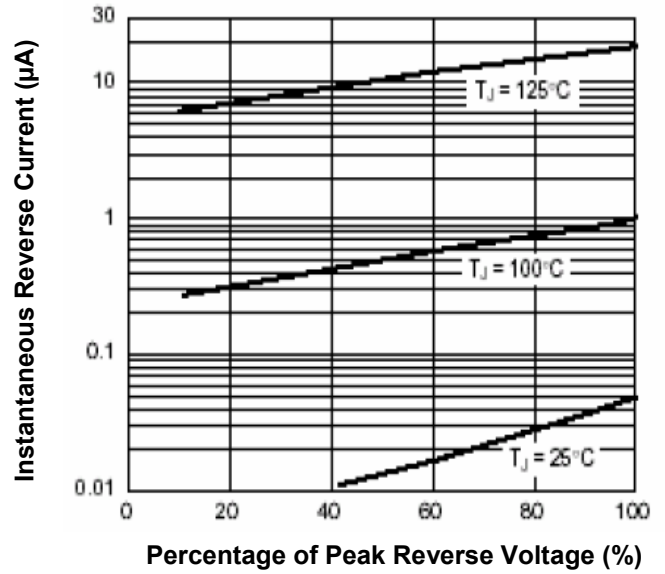
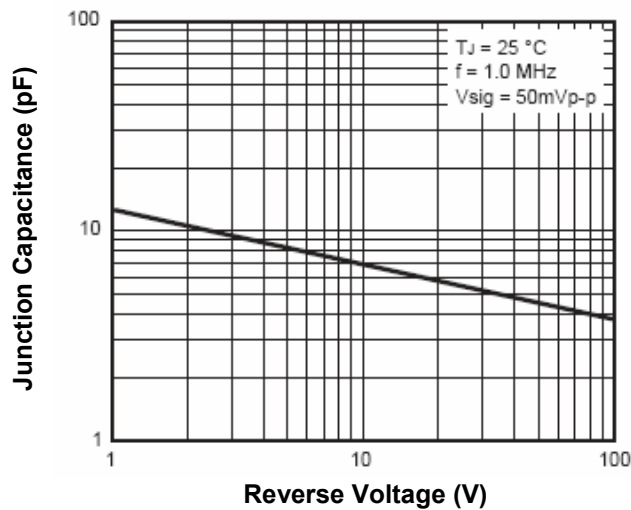


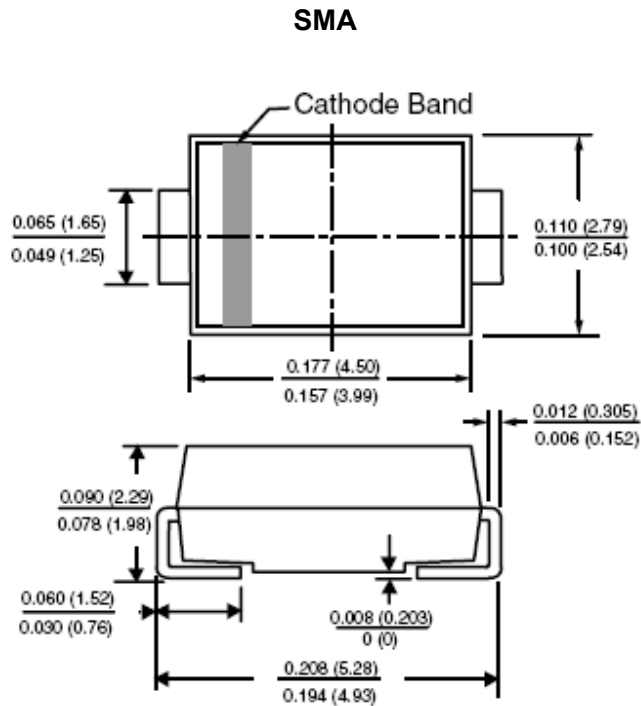
Fig.5- Typical Junction Capacitance



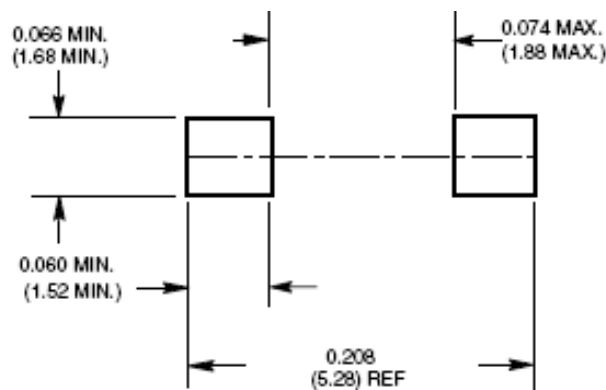
1.0A Surface Mount Fast Recovery Rectifier

SMA4933 - SMA4937

Dimensions in inch (mm)



Mounting Pad Layout in inch (mm)



1.0A Surface Mount Fast Recovery Rectifier

SMA4933 - SMA4937

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