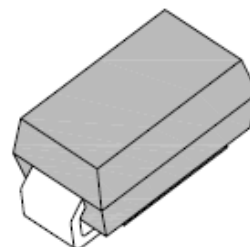


1.0A Surface Mount Fast Recovery Rectifier

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
V_{RRM}	Max. Recurrent Peak Reverse Voltage	50	100	200	400	600	V
V_{RMS}	Max. RMS Voltage	35	70	140	280	420	V
V_{DC}	Max. DC Blocking Voltage	50	100	200	400	600	v
I_O	Max. Average Forward Output Rectified Current @ TL=50°C	1.0					A
I_{FSM}	Peak Forward Surge Current (Note 1)	30					A
R_{θJA}	Max. Thermal Resistance	105					°C/W
R_{θJL}		32					
T_J,T_{STG}	Operating Junction and Storage Temperature Range	-55 to 150					°C

1.0A Surface Mount Fast Recovery Rectifier

SMA4933 - SMA4937

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

Symbol	Parameter		SMA4933	SMA4934	SMA4935	SMA4936	SMA4937	Units	
V _F	Max. Instantaneous Forward Voltage Drop @IO=1.0A		1.2						V
I _R	Maximum DC Reverse Current at Rated DC Blocking Voltage	TA=25°C	5.0						µA
		TA=125°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: $I_F=1.0\text{A}$, $V_R=30\text{V}$, $di/dt=50\text{A}/\mu\text{s}$, and $I_{rr}=10\% I_R$ (max.) for measurement of T_{rr}
- Measured at 1MHz and applied reverse voltage of 4.0VDC

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

Fig.1- Forward Current Derating Curve

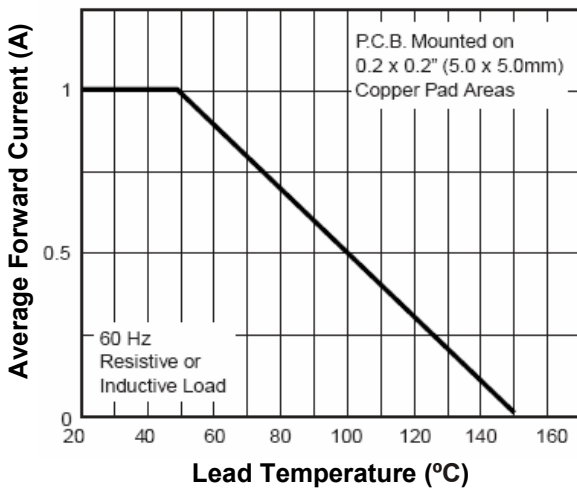
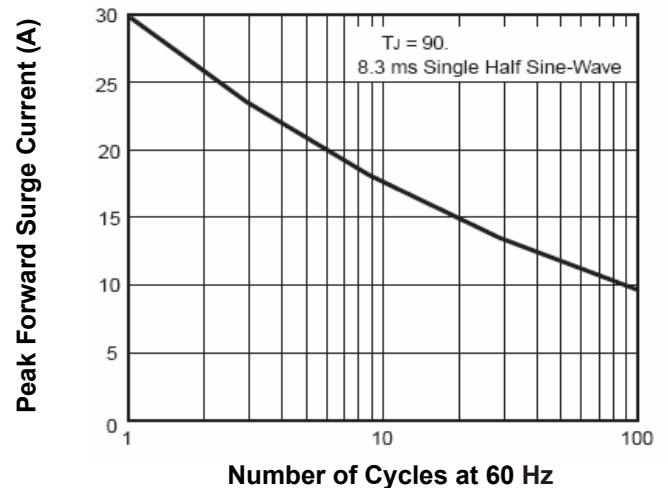


Fig. 2- Maximum Non-Repetitive Peak Forward Surge Current



1.0A Surface Mount Fast Recovery Rectifier

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Fig.3- Typical Instantaneous Forward Characteristics

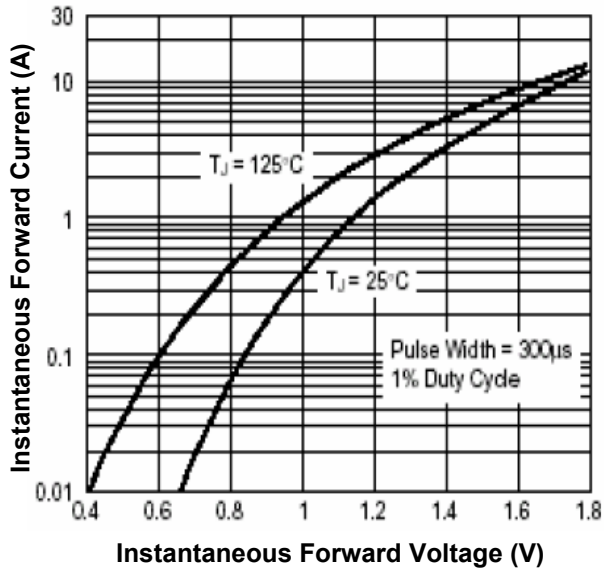


Fig.4- Typical Reverse Characteristics

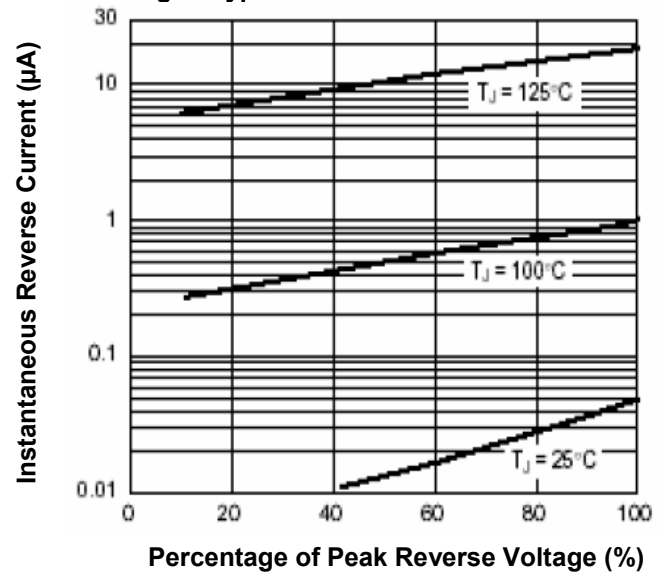
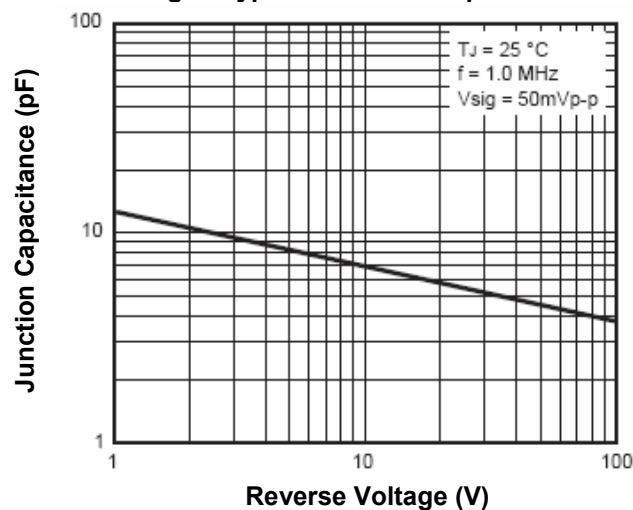


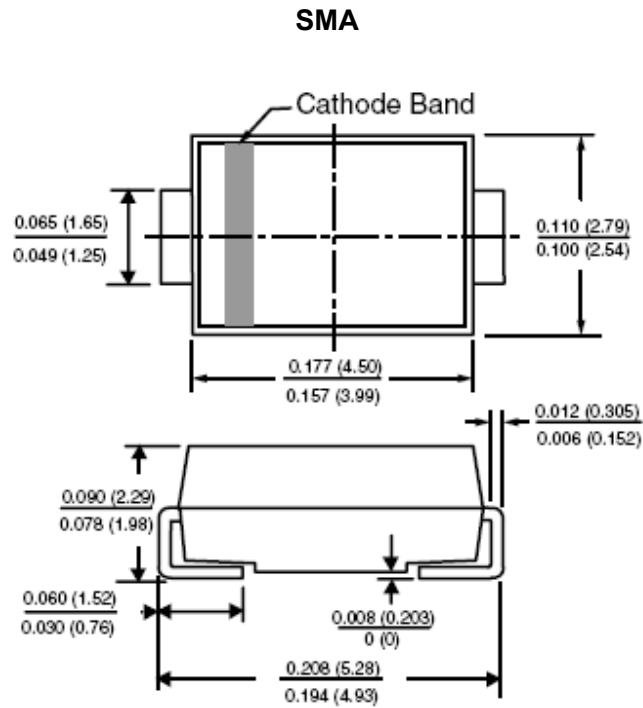
Fig.5- Typical Junction Capacitance



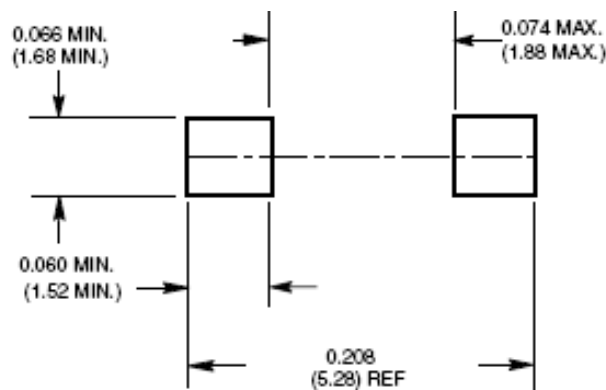
1.0A Surface Mount Fast Recovery Rectifier

SMA4933 - SMA4937

Dimensions in inch (mm)



Mounting Pad Layout in inch (mm)



1.0A Surface Mount Fast Recovery Rectifier

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