

**1.0 A Surface Mount Fast Recovery Rectifier**  
Rectifier Reverse Voltage 50 to 600V



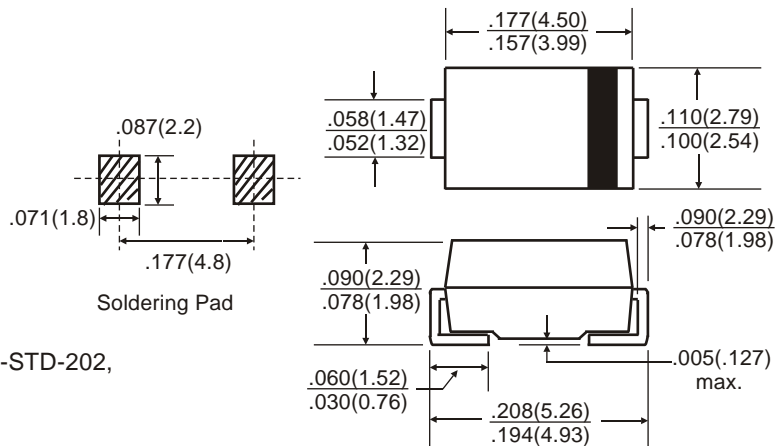
SMA / DO-214AC

**Features**

- Ideal for surface mounted applications
- Fast switching for high efficiency
- High current capability and low Forward Voltage Drop
- Surge overload rating to 30A peak
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

**Mechanical Data**

Case: Molded plastic  
 Terminals: Solder plated solderable per MIL-STD-202, Method 208  
 Polarity: Cathode indicated with color band  
 Weight: 0.063 grams (approx)



All dimensions inches and (millimeters)

**Maximum Ratings & Thermal Characteristics**

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
 For Capacitive load derate current by 20%.

Parameter	Symbol	SM4933	SM4934	SM4935	SM4936	SM4937	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	V
Maximum average forward rectified output current at TA=75°C	IF(AV)	1.0					A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	30.0					A
Maximum reverse recovery time TJ=25°C	Trr	150					nS
Typical thermal resistance per element	ReJA	50					°C/W
Typical junction capacitance per element	Cj	15					pF
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150					°C

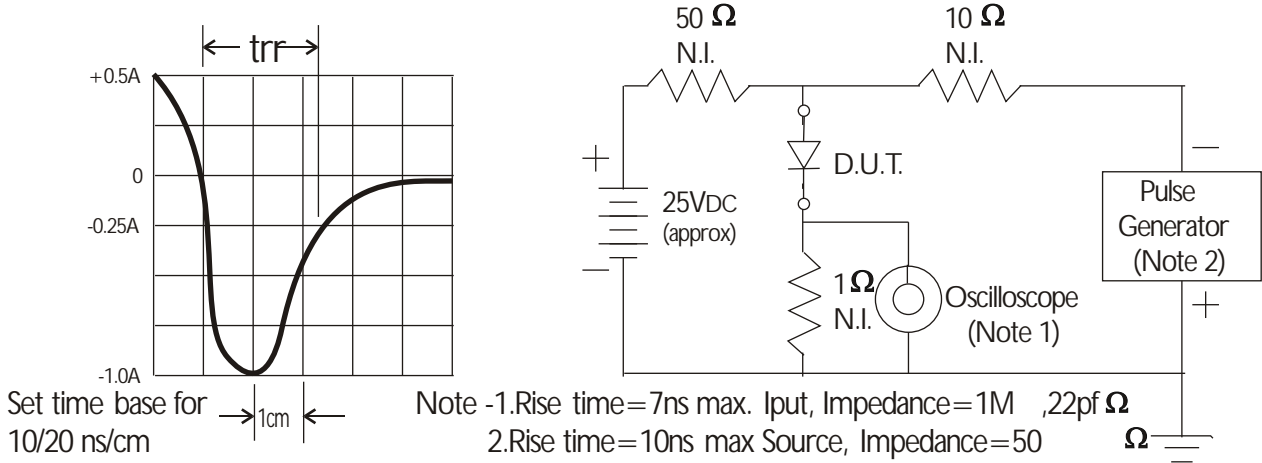
**Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
 For Capacitive load derate by 20 %.

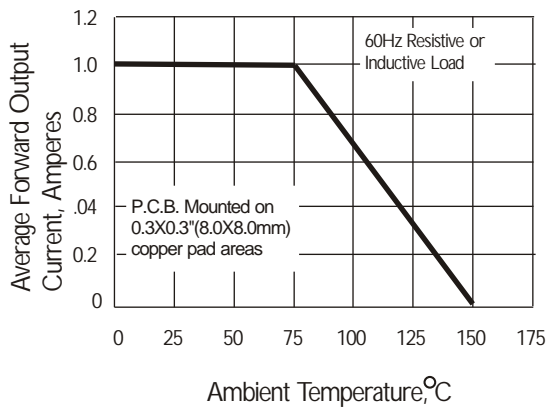
Parameter	Symbol	SM4933	SM4934	SM4935	SM4936	SM4937	Unit
Maximum instantaneous forward voltage drop per leg at 1.0A	VF	1.3					V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element	IR	5.0					µA

# Rating and Characteristic Curves ( $T_A=25^{\circ}\text{C}$ Unless otherwise noted ) SM4933 thru SM4937

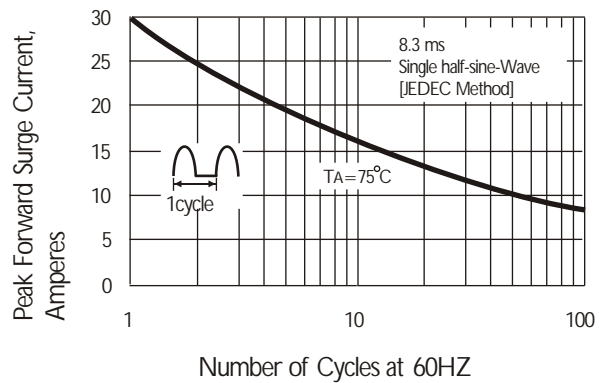
**Fig. 1 Reverse Recovery Time and Test Circuit Diagram**



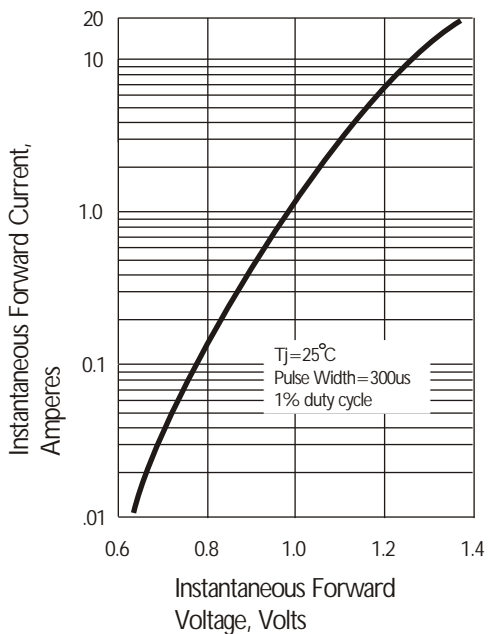
**Fig. 2 Derating Curve for Output Rectified Current**



**Fig. 3 Peak Forward Surge Current**



**Fig. 4 Typical Instantaneous Forward Characteristics**



**Fig. 5 Typical Junction Capacitance**

