

RoHS Compliant Product

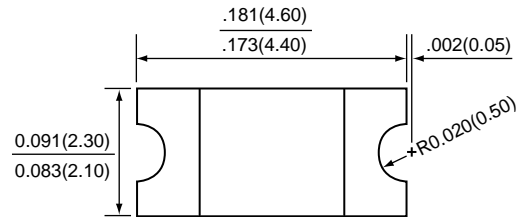
A suffix of "-C" specifies halogen-free



**2010**

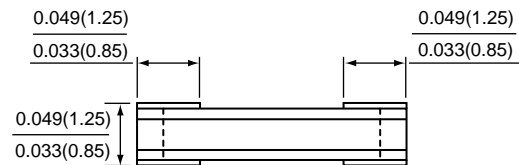
## FEATURES

- \* Ideal for surface mount applications
- \* High Voltage, Low profile package
- \* Built-in strain relief
- \* Fast switching speed



## MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Metallurgically bonded construction
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.063 grams



\* Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

TYPE NUMBER	SFM10SS	SFM12SS	SFM15SS	UNITS
Maximum Recurrent Peak Reverse Voltage	1000	1200	1500	V
Maximum RMS Voltage	800	960	1200	V
Maximum DC Blocking Voltage	1000	1200	1500	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length at Ta=55°C		1.0		A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		25		A
Maximum Instantaneous Forward Voltage at 1.0A		1.3		V
Maximum DC Reverse Current Ta=25°C		5.0		µA
at Rated DC Blocking Voltage Ta=100°C		100		µA
Maximum Reverse Recovery Time (Note 1)		500		nS
Typical Junction Capacitance (Note 2)		15		pF
Operating and Storage Temperature Range T <sub>J</sub> , T <sub>STG</sub>		-55 — +155		°C

### NOTES:

1. Reverse Recovery Time test condition: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Marking Code: SMF10SS RGC10M  
SMF12SS RGC10Q  
SMF15SS RGC10Y

RATING AND CHARACTERISTIC CURVES (SMF10SS THRU SMF15SS)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

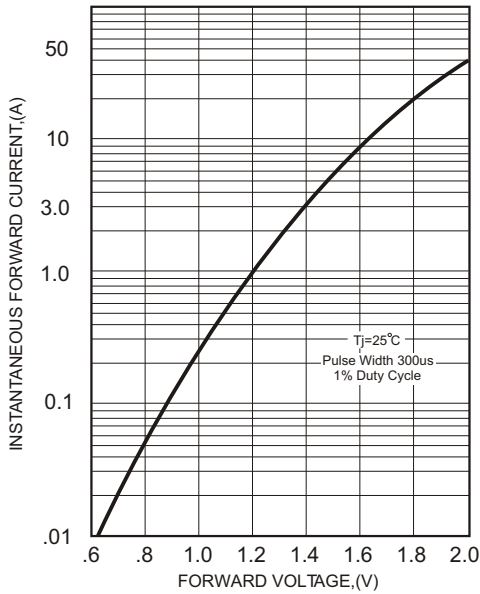


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

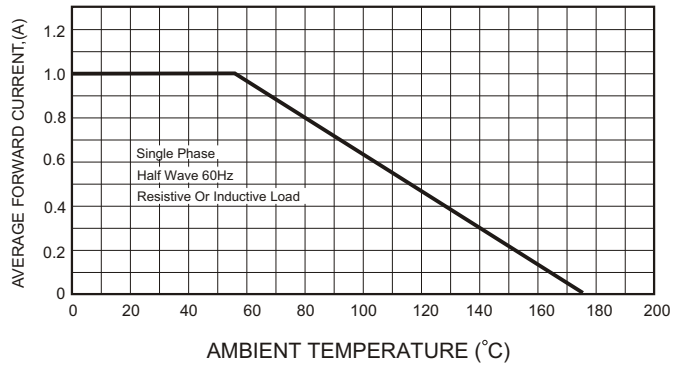


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

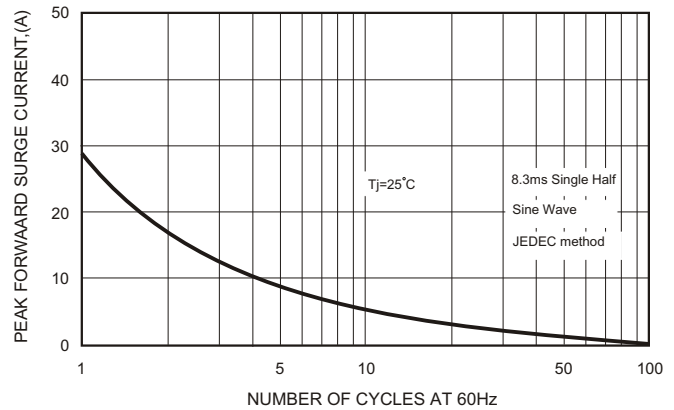
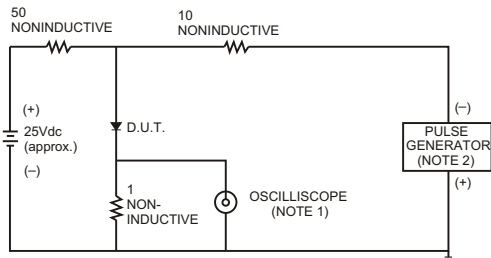


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.  
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

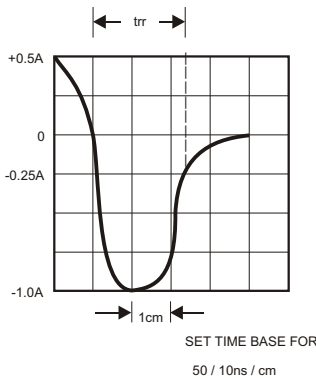


FIG.5-TYPICAL JUNCTION CAPACITANCE

