

RoHS Compliant Product

A suffix of "-C" specifies halogen-free

SMA

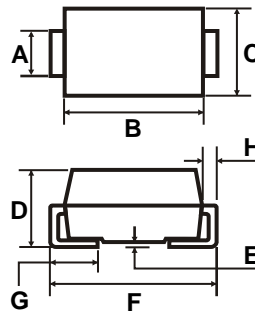
FEATURES

- * Ideal for surface mount applications
- * Easy pick and place
- * 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 Millimeters		Dimensions in Inches	
A	1.25	1.65	0.049	0.065
B	3.99	4.60	0.157	0.181
C	2.50	2.90	0.098	0.114
D	1.98	2.44	0.078	0.096
E	0.051	0.203	0.002	0.008
F	4.78	5.28	0.188	0.208
G	0.76	1.52	0.030	0.060
H	0.152	0.305	0.006	0.012

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	SMF101A	SMF102A	SMF103A	SMF104A	SMF105A	SMF106A	SMF107A	UNITS	
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	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)	30							A	
Maximum Instantaneous Forward Voltage at 1.0A	1.3				1.5	1.7		V	
Maximum DC Reverse Current Ta=25°C at Rated DC Blocking Voltage Ta=125°C				5.0					µA
				50					µA
Maximum Reverse Recovery Time (Note 1)	150					250	500		nS
Typical Junction Capacitance (Note 2)				15					pF
Thermal Resistance, Junction to Lead (Note 3)				30					
Thermal Resistance, Junction to Ambient (Note 3)				220					°C/W
Operating and Storage Temperature Range T _J , T _{STG}				-65 ~ +150					°C

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Rating applies when surface mounted on the minimum pad size recommended, PC Board FR-4.

RATING AND CHARACTERISTIC CURVES (SMF101A THRU SMF107A)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

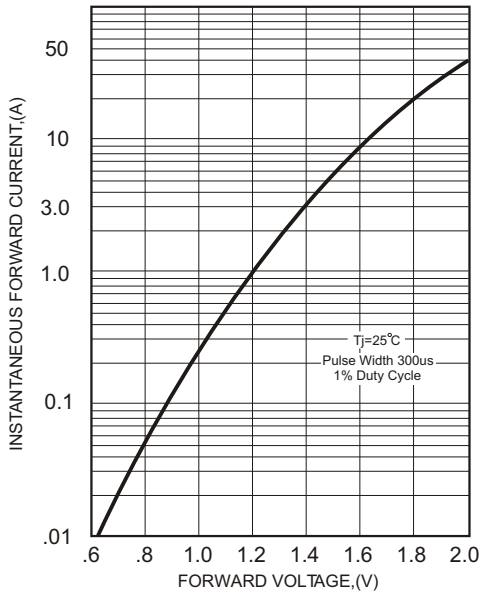


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

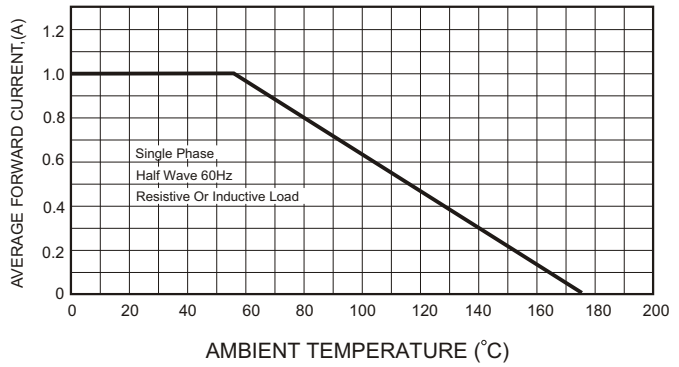


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

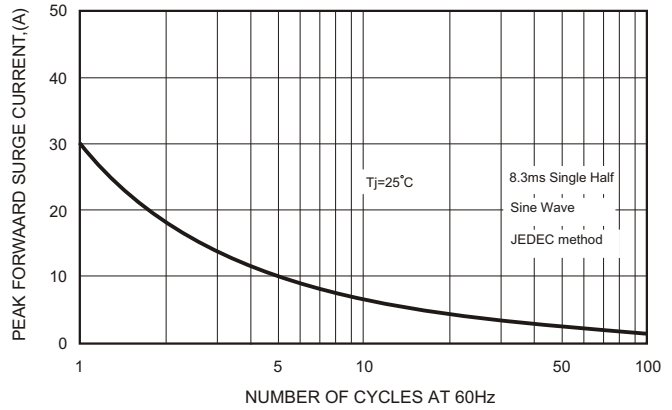
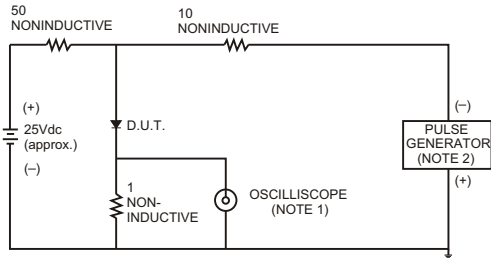


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

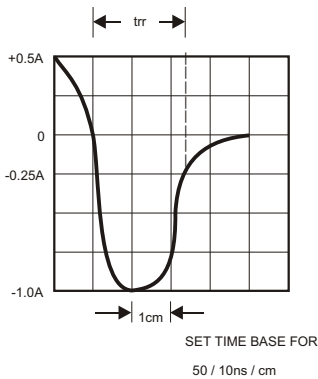


FIG.5-TYPICAL JUNCTION CAPACITANCE

