Elektronische Bauelemente

SUF101A THRU SUF105A

VOLTAGE 50V ~ 600V

1.0AMP Surface Mount Super Fast Recovery Rectifiers

RoHS Compliant Product

A suffix of "-C" specifies halogen-free

SMA

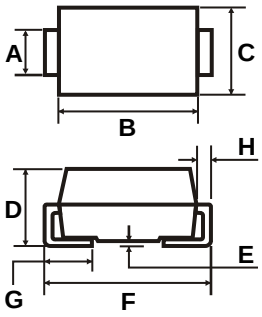


FEATURES

* Ideal for surface mount applications
* Easy pick and place
* Built-in strain relief
* Super Fast switching speed under 35ns

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	SUF101A	SUF102A	SUF103A	SUF104A	SUF105A	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	V
Maximum RMS Voltage	35	70	140	280	420	V
Maximum DC Blocking Voltage	50	100	200	400	600	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	0.95			1.25	1.7	V
Maximum DC Reverse Current Ta=25°C	5.0					µA
at Rated DC Blocking Voltage T a=100˚C	80					µA
Maximum Reverse Recovery Time (Note 1)	35					nS
Typical Junction Capacitance (Note 2)	15					pF
Operating and Storage Temperature Range T_J, T_{STG}	-65 — +175					˚C

NOTES:

1. Reverse Recovery Time test condition: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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RATING AND CHARACTERISTIC CURVES (SUF101A THRU SUF105A)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

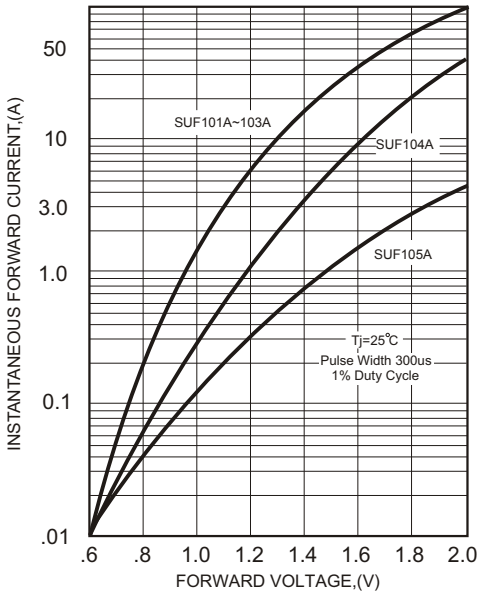


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

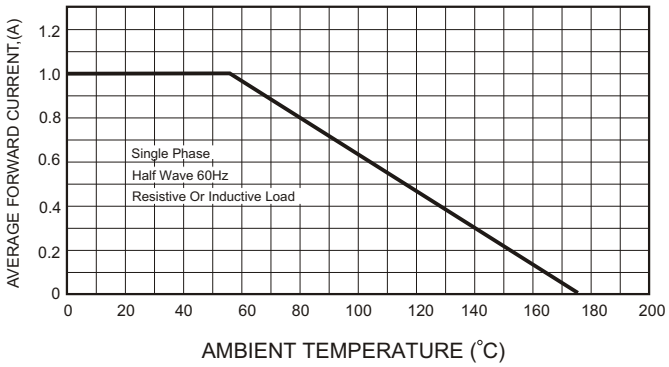
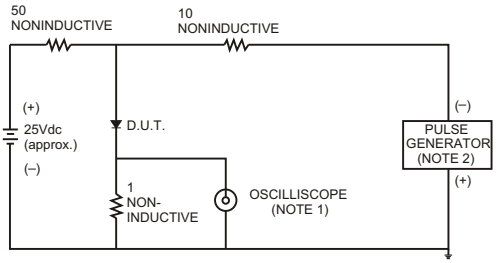


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

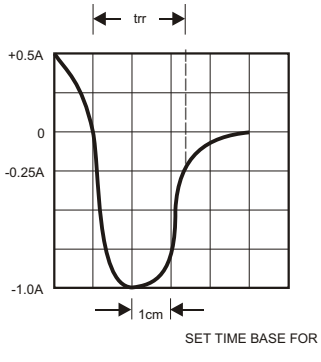


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

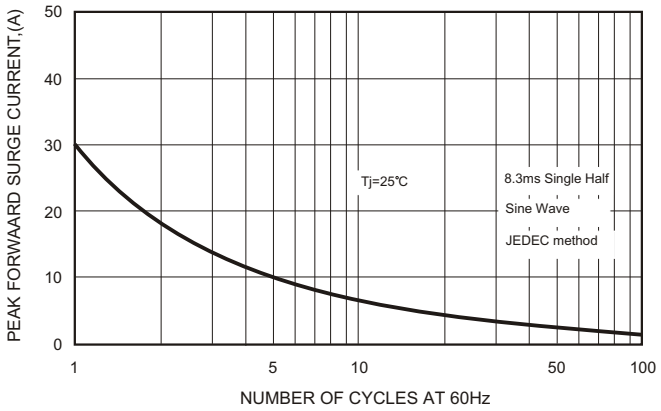


FIG.5-TYPICAL JUNCTION CAPACITANCE

