

RoHS Compliant Product

A suffix of "-C" specifies and halogen-free

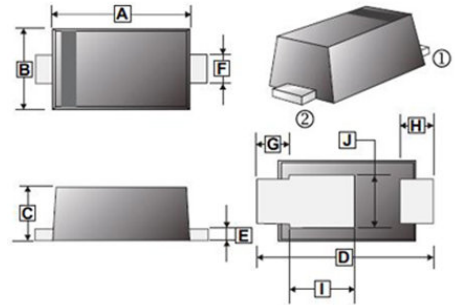
FEATURES

- Low leakage, Low forward voltage
- High current capability
- Super fast switching speed
- High surge capability
- High reliability
- Good for switching mode circuit

MECHANICAL DATA

- Epoxy: Device has UL flammability classification 94V-0
- Lead: MIL-STD-202E method 208C guaranteed
- Mounting position: Any
- Polarity: Color band denotes cathode end
- Weight: 0.016gram(Approx.)

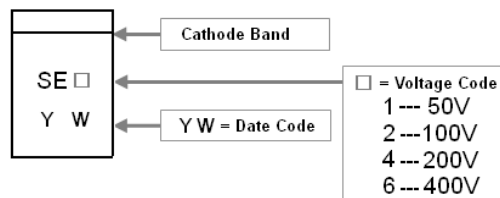
SOD-123T



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.7	2.9	F	0.7	0.9
B	1.75	1.95	G	0.75	0.85
C	0.9	1	H	0.75	0.85
D	3.6	3.8	I	1.28	1.32
E	0.2 Typ.				

MARKING

Part Number	Marking
SUF101RT	SE1
SUF102RT	SE2
SUF103RT	SE4
SUF104RT	SE6



PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123T	3K	7 inch

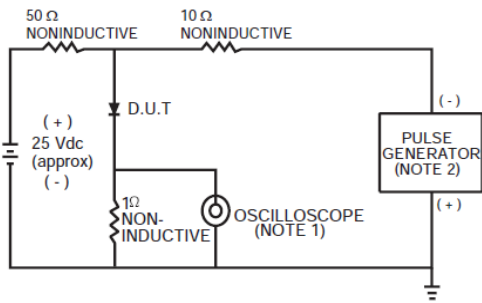
MAXIMUM RATINGS (T_A=25°C unless otherwise specified.)

Parameter	Symbol	Part Number				Unit
		SUF101RT	SUF102RT	SUF103RT	SUF104RT	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	V
Maximum Average Forward Rectified Current 9.5mm Lead Length @T _A =55°C	I _O	1				A
Peak Forward Surge Current@8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	15				A
Typical Current Squared Time	I ² t	0.9				A ² S
Maximum Forward Voltage @1A	V _F	0.95			1.25	V
Maximum Average Reverse Current at Rated DC Blocking Voltage	T _A =25°C	5				uA
	T _A =100°C	350				
Maximum Reverse Recovery Time ¹	t _{rr}	35				nS
Total Junction Capacitance ²	C _J	15			10	pF
Typical Thermal Resistance ³	R _{θJA}	130				°C/W
Typical Thermal Resistance ³	R _{θJL}	30				°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55~150				°C

Notes:

1. Test Conditions: I_F= 0.5A, I_R= -1.0A, I_{RR}= -0.25A.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. Thermal Resistance: Mounted on PCB.

CHARACTERISTIC CURVES



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

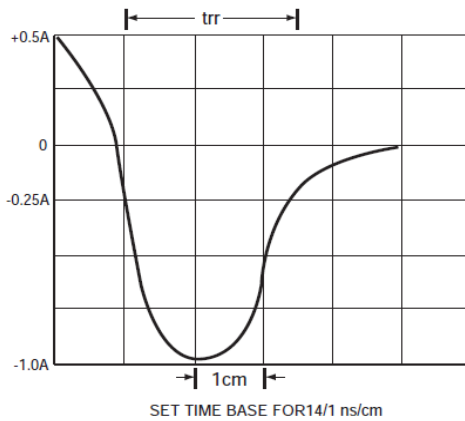


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

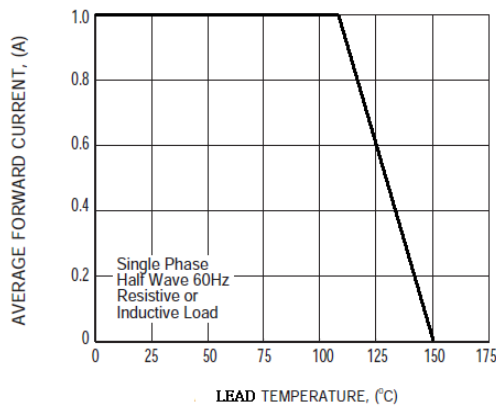


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

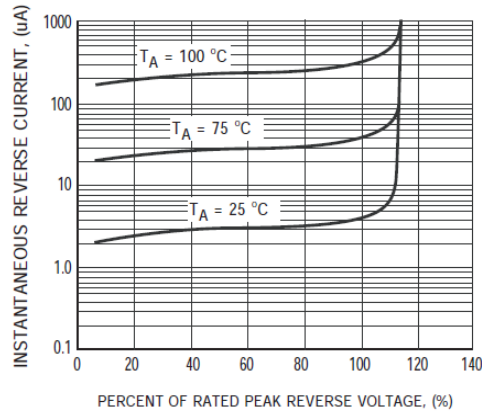


FIG.3 TYPICAL REVERSE CHARACTERISTICS

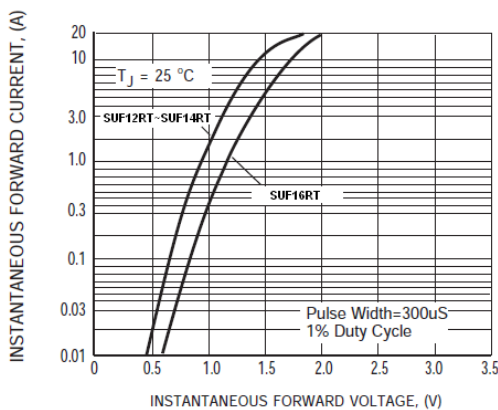


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

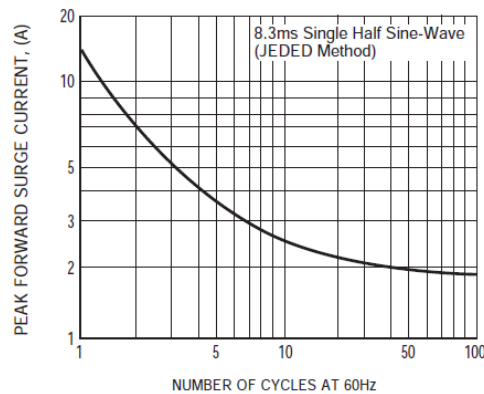


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

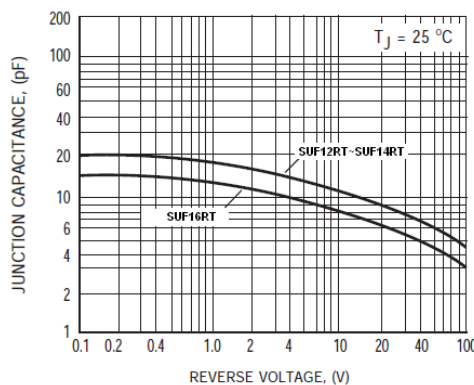


FIG.6 TYPICAL JUNCTION CAPACITANCE