

RoHS Compliant Product
A suffix of "-C" specifies halogen-free and RoHS Compliant

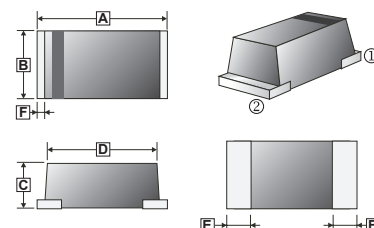
DESCRIPTIONS

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Small plastic SMD package.
- High surge and high current capability.
- Superfast recovery time for switching mode application.
- Glass-passivated chip junction.

SOD-123M

PACKAGING INFORMATION

- Case: Molded plastic
- Epoxy: UL94-V0 rate flame retardant
- Weight: 0.0270 g (approximately)



MARKING CODE

Part Number	Marking Code	Part Number	Marking Code
SUF11M	S1	SUF16M	S6
SUF12M	S2	SUF18M	S8
SUF14M	S4		

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	3.50	3.90	D		3.60 (MAX.)
B	1.40	1.80	E		0.80 (TYP.)
C	1.30	1.70	F		0.30 (TYP.)

ELECTRICAL CHARACTERISTICS AND RATINGS (T_A = 25°C unless otherwise specified.)

PARAMETERS	SYMBOL	PART NUMBERS					UNITS	TESTING CONDITIONS
		SUF11M	SUF12M	SUF14M	SUF16M	SUF18M		
Recurrent Peak Reverse Voltage (Max.)	V _{RRM}	50	100	200	400	600	V	
RMS Voltage (Max.)	V _{RMS}	35	70	140	280	420	V	
Reverse Voltage (Max.)	V _R	50	100	200	400	600	V	
Forward Voltage (Max.)	V _F	0.95			1.25	1.70	V	I _F = 1A
Average Forward Rectified Current (Max.)	I _O	1.0					A	Ambient temperature = 50°C
Peak Forward Surge Current	I _{FSM}	25					A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)
DC Reverse Current at Rated DC Blocking Voltage (Max.)	I _R	5.0					μA	V _R =V _{RRM} , T _A =25°C
		100						V _R =V _{RRM} , T _A =100°C
Reverse Recovery Time	t _{RR}	35					nS	
Junction – Ambient Thermal Resistance (Typ.)	R _{θJA}	42					°C/W	
Junction Capacitance (Typ.)	C _J	10					pF	f=1MHz and applied 4V DC reverse voltage
Storage and Operating Temperature Range	T _{STG} , T _J	-65 ~ 175, -55 to 150					°C	

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD

CHARACTERISTICS

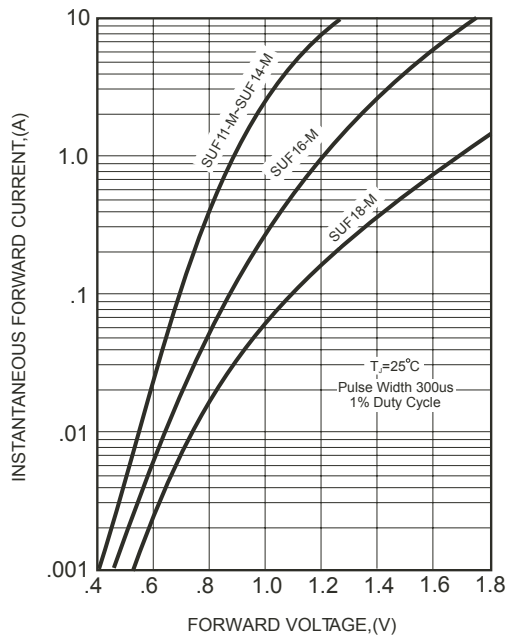


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

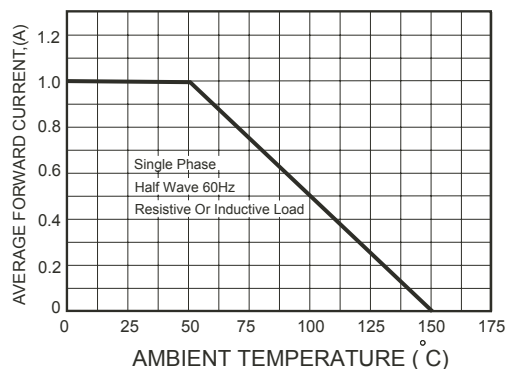
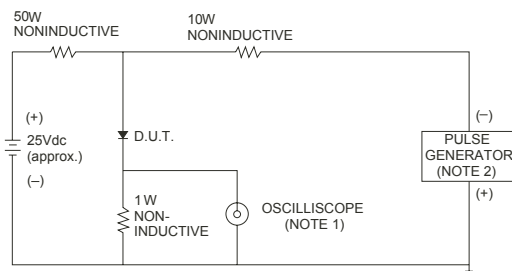


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE

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

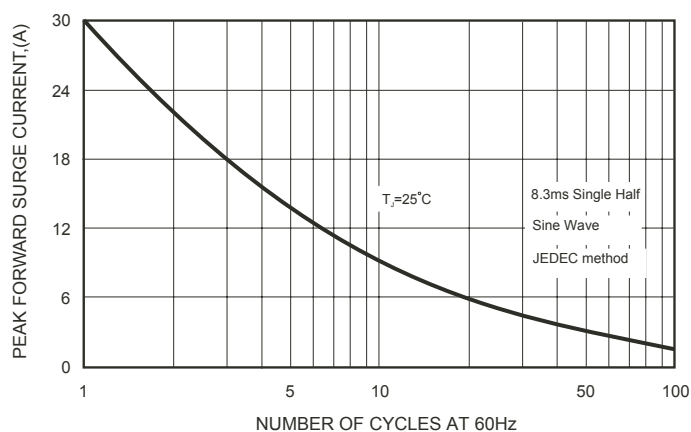


FIG.5-TYPICAL JUNCTION CAPACITANCE

