

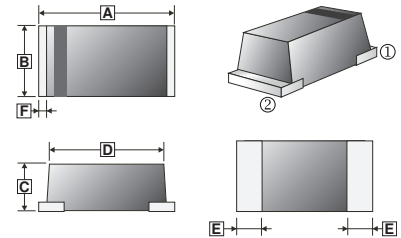
RoHS Compliant Product

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-123MH



## MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94-V0 rate flame retardant
- Weight: 0.0110 g (approximately)

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	3.30	3.70	D	3.10 (MAX.)	
B	1.40	1.80	E	0.80 (TYP.)	
C	0.60	1.00	F	0.30 (TYP.)	

## MARKING CODE

Part Number	Marking	Part Number	Marking
SUF11MH	S4	SUF16MH	S6
SUF12MH	S4	SUF18MH	S8
SUF14MH	S4		

## PACKAGING INFORMATION

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

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

Parameters	Symbol	Part Number					Unit
		SUF11 MH	SUF12 MH	SUF14 MH	SUF16 MH	SUF18 MH	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	V
Maximum Reverse Voltage	V <sub>R</sub>	50	100	200	400	600	V
Maximum Forward Voltage @ I <sub>F</sub> =1A	V <sub>F</sub>	0.95			1.25	1.70	V
Maximum Average Forward Rectified Current @ T <sub>A</sub> =50°C	I <sub>O</sub>	1					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	25					A
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	5					μA
		100					
Reverse Recovery Time	T <sub>rr</sub>	35					nS
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	42					°C/W
Typical Junction Capacitance	C <sub>J</sub>	10					pF
Storage and Operating Temperature Range	T <sub>STG</sub> , T <sub>J</sub>	-65 ~ 175, -55 ~ 150					°C

Note:

1. f=1MHz and applied 4V DC reverse voltage

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1-TYPICAL FORWARD CHARACTERISTICS

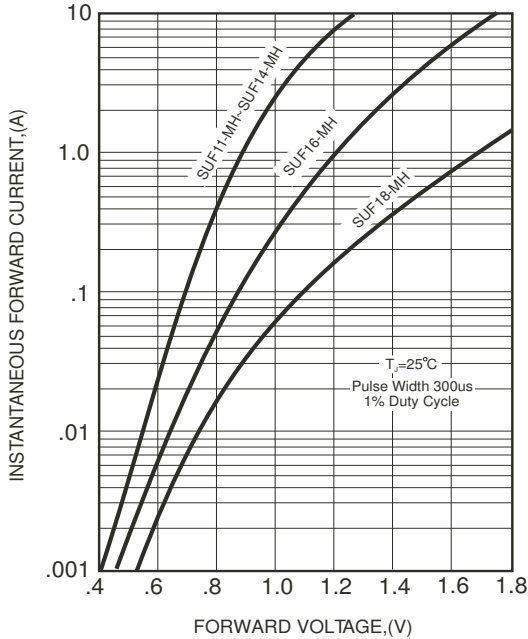


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

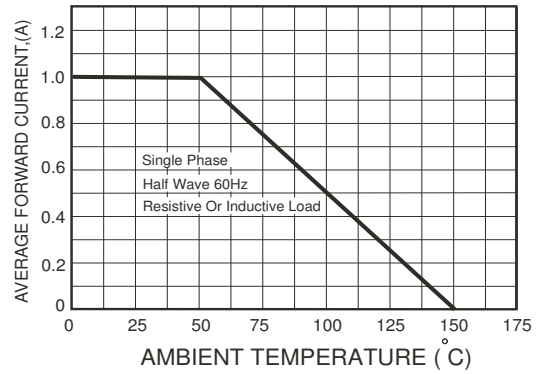


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

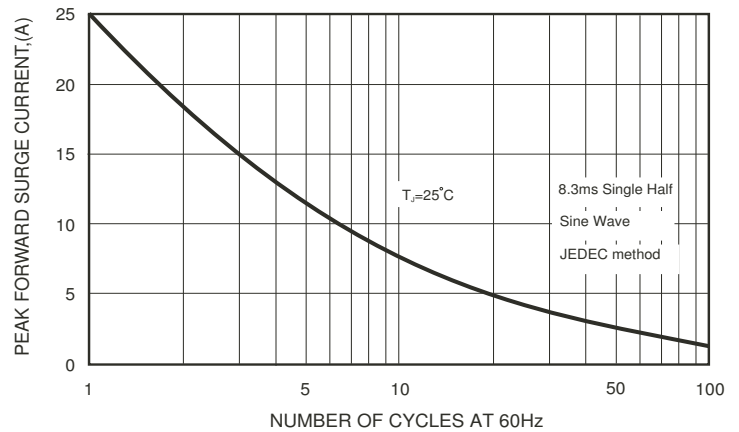
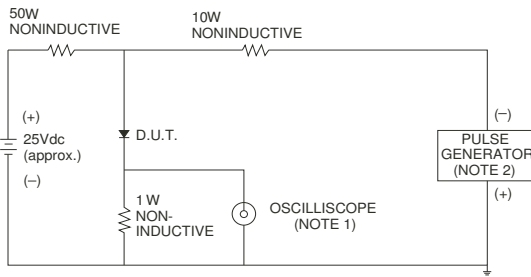


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

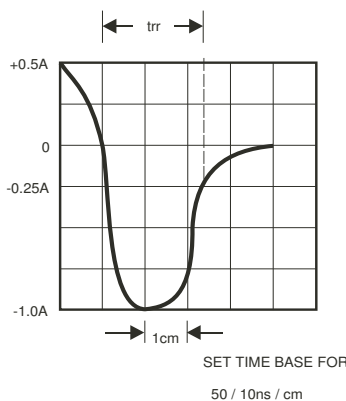


FIG.5-TYPICAL JUNCTION CAPACITANCE

