

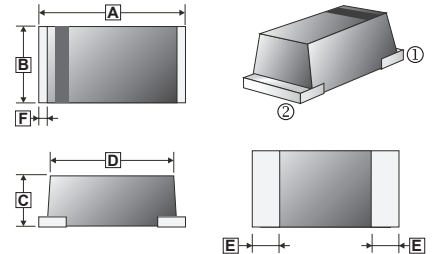
RoHS Compliant Product

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

FEATURES

- 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.
- Fast switching for high efficiency.
- Glass-passivated chip junction.

SOD-123MH



PACKAGING INFORMATION

- Case: Molded plastic
- Epoxy: UL94-V0 rate flame retardant
- Weight: 0.01100 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 Code	Part Number	Marking Code
SM4001MH	A1	SM4005MH	A5
SM4002MH	A2	SM4006MH	A6
SM4003MH	A3	SM4007MH	A7
SM4004MH	A4		

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

PARAMETERS	SYMBOL	PART NUMBERS							UNITS	TESTING CONDITIONS
		SM 4001 MH	SM 4002 MH	SM 4003 MH	SM 4004 MH	SM 4005 MH	SM 4006 MH	SM 4007 MH		
Recurrent Peak Reverse Voltage (Max.)	V _{RRM}	50	100	200	400	600	800	1000	V	
RMS Voltage (Max.)	V _{RMS}	35	70	140	280	420	560	700	V	
Reverse Voltage (Max.)	V _R	50	100	200	400	600	800	1000	V	
Forward Voltage (Max.)	V _F	1.10							V	I _F = 1 A
Average Forward Rectified Current (Max.)	I _O	1.0							A	See Fig.1
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
		50								V _R =V _{RRM} , T _a =125°C
Junction – Ambient Thermal Resistance (Typ.)	R _{θJA}	60							°C/W	
Junction Capacitance (Typ.)	C _J	15							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

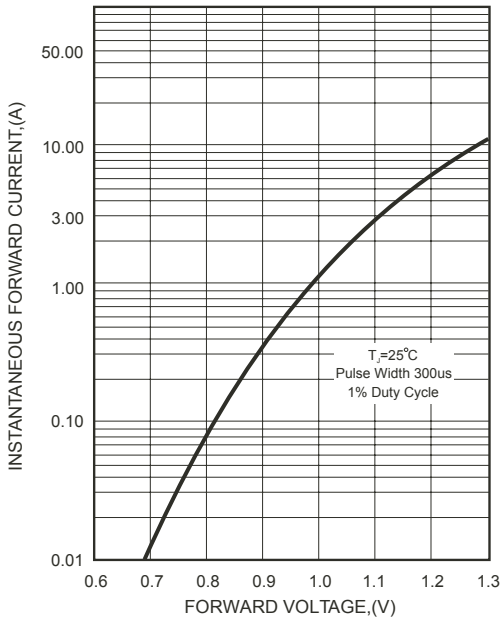


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

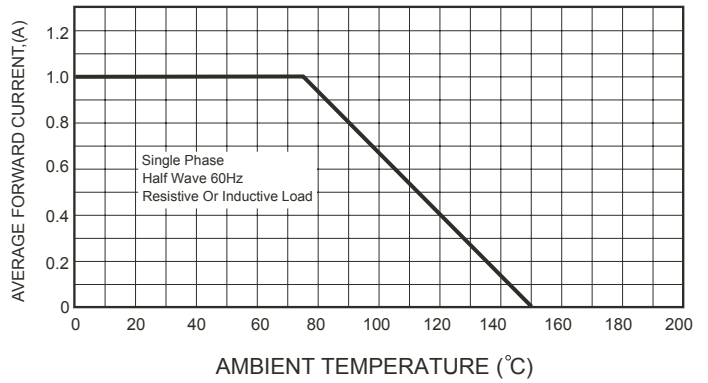


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

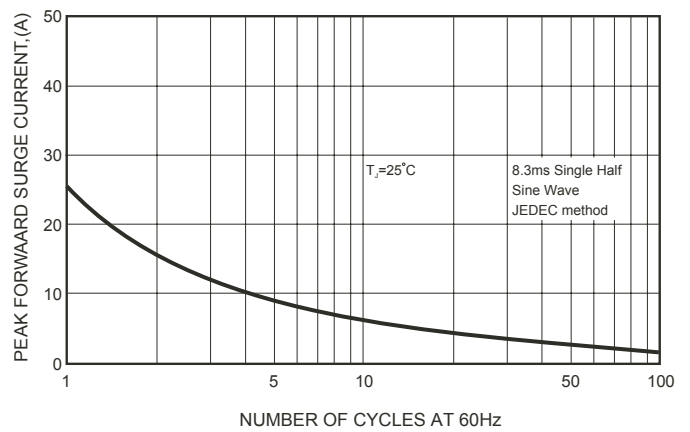


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

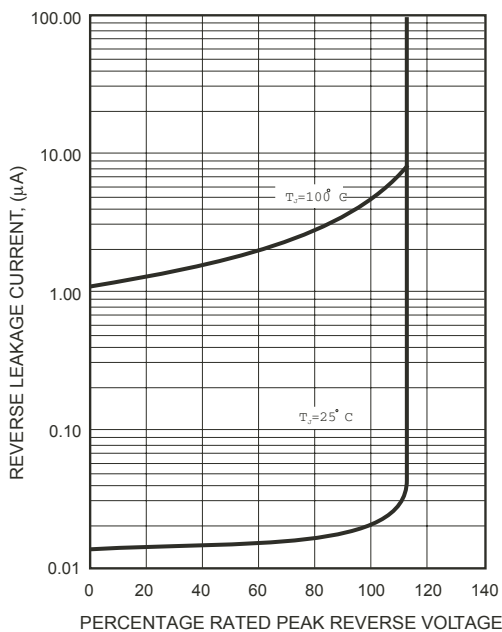


FIG.5-TYPICAL JUNCTION CAPACITANCE

