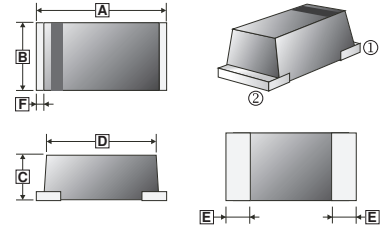


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

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.
- T_{RR} less than 25nS for high efficiency
- Low forward drop down voltage
- High surge and high current capability.
- Superfast recovery time for switching mode application.
- Glass-passivated chip junction.

SOD-123M



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.)	

MECHANICAL DATA

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

MARKING

Part Number	Marking	Part Number	Marking
ES11M	E3	ES14M	E4
ES12M	E3	ES15M	E5
ES13M	E3		

PACKAGING INFORMATION

Package	MPQ	Leader Size
SOD-123M	2.5K	7 inch

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameters	Symbol	Part Number					Units
		ES11M	ES12M	ES13M	ES14M	ES15M	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V
Maximum Reverse Voltage	V_R	50	100	200	400	600	V
Maximum Forward Voltage @ $I_F=1A$	V_F	0.875		1.25	1.75		V
Maximum Average Forward Rectified Current @ $T_A=55^\circ\text{C}$	I_O	1.0					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30					A
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	5					μA
	$T_A=125^\circ\text{C}$	100					
Reverse Recovery Time	T_{RR}	25					nS
Typical Junction Capacitance ¹	C_J	15					pF
Storage and Operating Temperature Range	T_{STG}, T_J	-65~175, -55~150					$^\circ\text{C}$

Note:

1. $f=1\text{MHz}$ and applied 4V DC reverse voltage

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CHARACTERISTICS

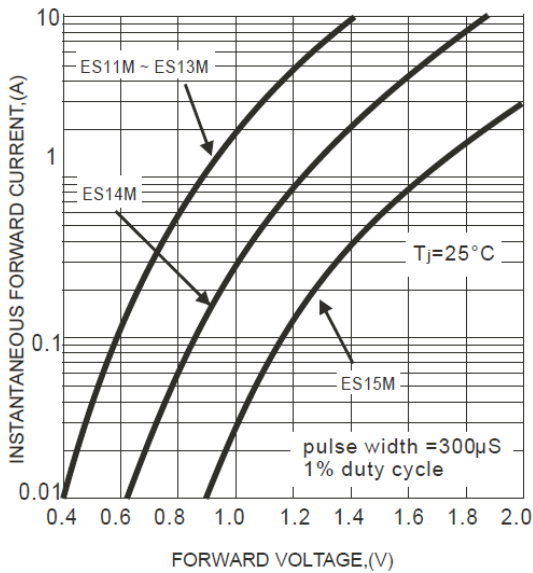


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

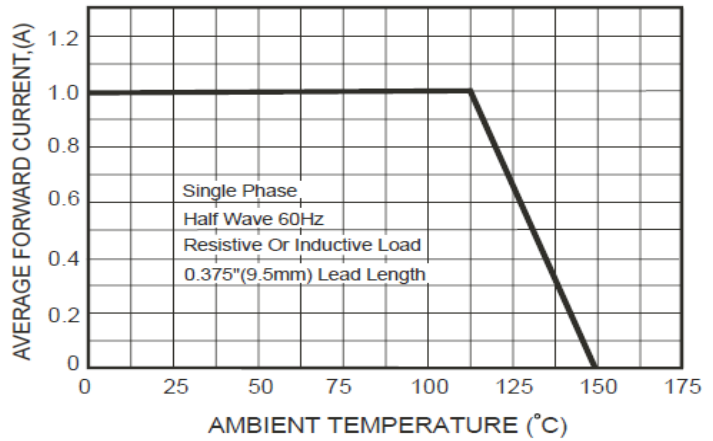
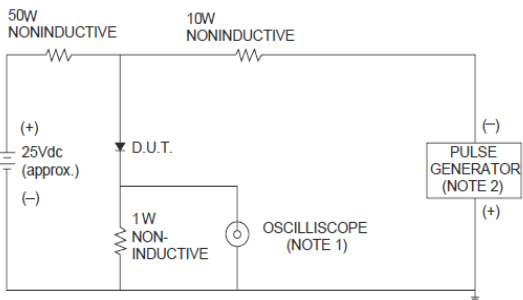


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

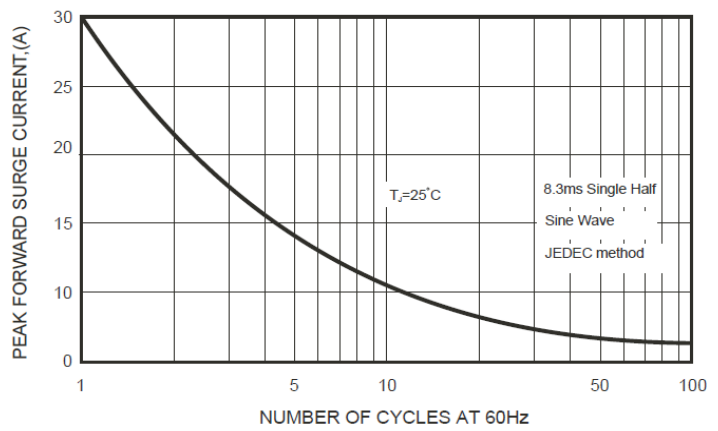


FIG.5-TYPICAL JUNCTION CAPACITANCE

