

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

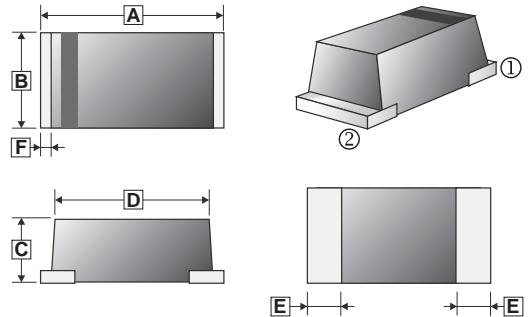
FEATURES

- 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.
- High current capability.
- Ultrafast recovery time for high efficiency.
- Glass passivated chip junction.

MECHANICAL DATA

- Case: Molded plastic, SOD-123MH
- Epoxy: UL94-V0 rated flame retardant
- Terminals: Plated terminals, solderable per MIL-STD-750, Method 2026.
- Polarity: Indicated by cathode band
- Mounting Position: Any
- Weight: 0.011 gram (Approximately)

SOD-123MH



| 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 |
|-------------|--------------|-------------|--------------|
| SEF101MH | H1 | SEF105MH | H5 |
| SEF102MH | H2 | SEF106MH | H6 |
| SEF103MH | H3 | SEF107MH | H7 |
| SEF104MH | H4 | | |

PACKAGE INFORMATION

| Package | MPQ | LeaderSize |
|-----------|-----|------------|
| SOD-123MH | 3K | 7' inch |

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

| Parameter | Symbol | Part Number | | | | | | | Unit |
|--|------------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| | | SEF 101MH | SEF 102MH | SEF 103MH | SEF 104MH | SEF 105MH | SEF 106MH | SEF 107MH | |
| Repetitive 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 |
| Continuous Reverse Voltage(Max.) | V _R | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Part Number | | | | | | | Unit | Testing Condition |
|--|-----------------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|---|
| | | SEF 101 MH | SEF 102 MH | SEF 103 MH | SEF 104 MH | SEF 105 MH | SEF 106 MH | SEF 107 MH | | |
| Forward Voltage (Max.) | V_F | 1 | | 1.3 | 1.7 | | | V | | |
| Average Forward Rectified Current (Max.) | I_O | 1 | | | | | | | A | Ambient Temperature =50°C |
| 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 | | | | | | | μA | $V_R=V_{RRM}, T_A=25^\circ\text{C}$ |
| | | 150 | | | | | | | | $V_R=V_{RRM}, T_A=100^\circ\text{C}$ |
| Thermal Resistance Junction to Ambient (Typ.) | $R_{\theta JA}$ | 42 | | | | | | | $^\circ\text{C/W}$ | |
| Diode Junction Capacitance (Typ.) | C_J | 70 | | | | | | | pF | f=1MHz and applied 4V DC reverse voltage |
| Storage and Operating Temperature Range | T_{STG}, T_J | -65 ~ 175, -55 ~ 150 | | | | | | | $^\circ\text{C}$ | |
| Reverse recovery time | T_{RR} | 50 | | | 75 | | | | nS | |

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CHARACTERISTICS

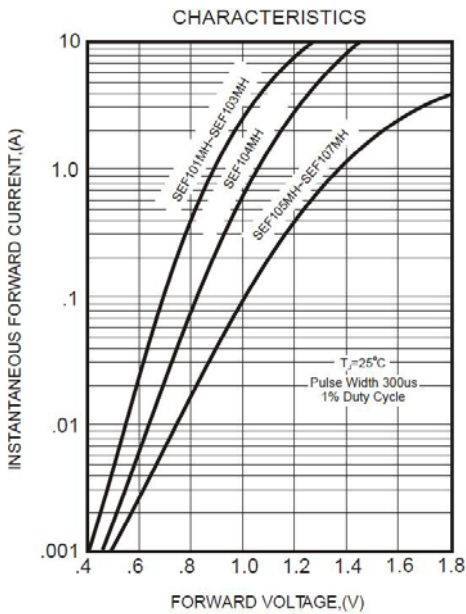


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

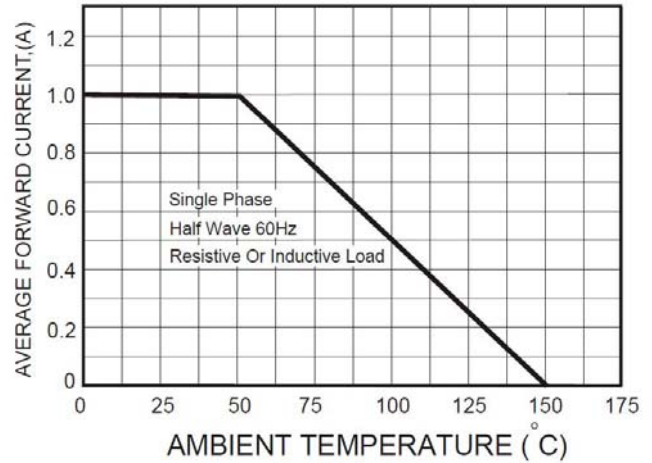
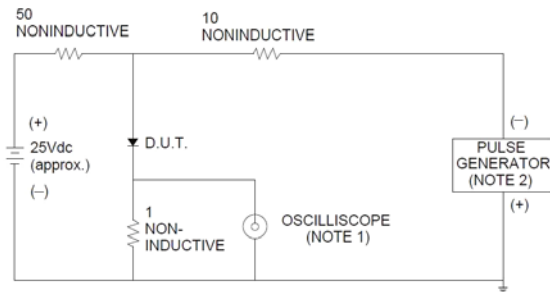


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

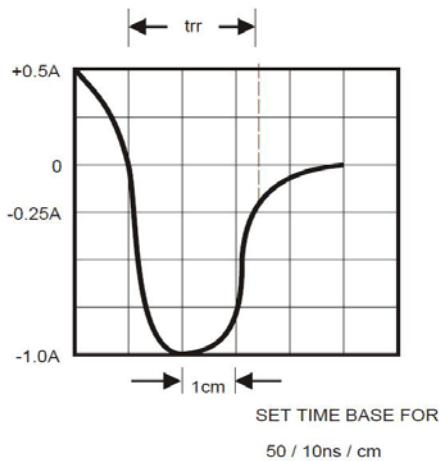
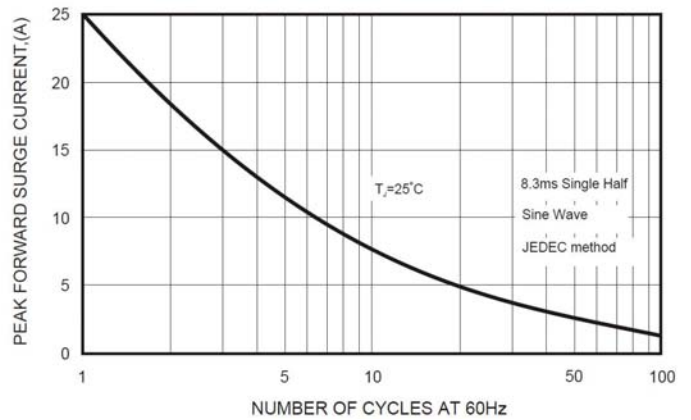


FIG.5-TYPICAL JUNCTION CAPACITANCE

