

RoHS Compliant Product

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

FEATURES

- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- Guarding for overvoltage protection
- Ultra high-speed switching
- Silicon epitaxial planar chip, metal silicon junction
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

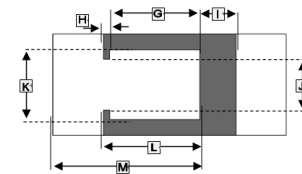
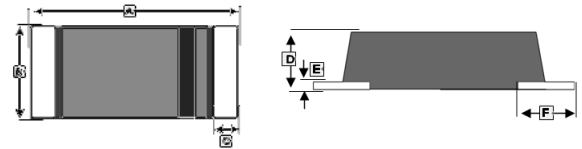
MECHANICAL DATA

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-123HT
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

MARKING

| | | | |
|---------|---------|---------|----------|
| Product | SM240HT | SM260HT | SM2100HT |
| Marking | 24 | 26 | 20 |

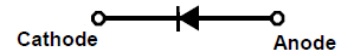
SOD-123HT



| REF. | Millimeter | | REF. | Millimeter | |
|------|------------|------|------|------------|------|
| | Min. | Max. | | Min. | Max. |
| A | 3.3 | 3.7 | H | 0.6 TYP. | |
| B | 1.4 | 1.8 | I | 0.6 | 0.8 |
| C | 0.3 TYP. | | J | 0.75 | 0.85 |
| D | 0.6 | 1.0 | K | 1.0 | 1.2 |
| E | 0.1 TYP. | | L | 1.1 | 1.3 |
| F | 0.8 TYP. | | M | 1.9 | 2.1 |
| G | 1.0 | 1.2 | | | |

PACKAGE INFORMATION

| | | |
|-----------|-----|-------------|
| Package | MPQ | Leader Size |
| SOD-123HT | 3K | 7 inch |



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

| Parameter | Symbol | Part Number | | | Unit |
|---|-----------------------|------------------|---------|----------|--------|
| | | SM240HT | SM260HT | SM2100HT | |
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 40 | 60 | 100 | V |
| Maximum RMS Voltage | V _{RMS} | 28 | 42 | 70 | V |
| Continuous reverse voltage | V _R | 40 | 60 | 100 | V |
| Maximum Instantaneous Forward Voltage @ I _F =2.0A | V _F | 0.5 | 0.7 | 0.85 | V |
| Maximum Average Forward Rectified Current, See Fig.1 | I _O | 2 | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 50 | | | A |
| Maximum Reverse Current | T _J =25°C | 0.2 | | | mA |
| | T _J =100°C | 10 | | | |
| Typical Junction Capacitance f=1MHz and applied 4V DC reverse voltage | C _J | 160 | | | pF |
| Thermal resistance | Junction to ambient | R _{θJA} | 72 | | °C / W |
| | Junction to case | R _{θJC} | 36 | | °C / W |
| Operating Temperature | T _J | -55~125 | -55~150 | | °C |
| Storage Temperature | T _{STG} | -65~175 | | | °C |

CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

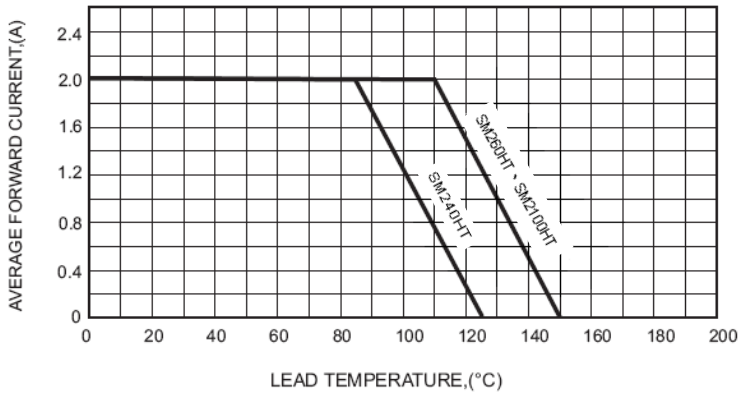


FIG.2-TYPICAL FORWARD CHARACTERISTICS

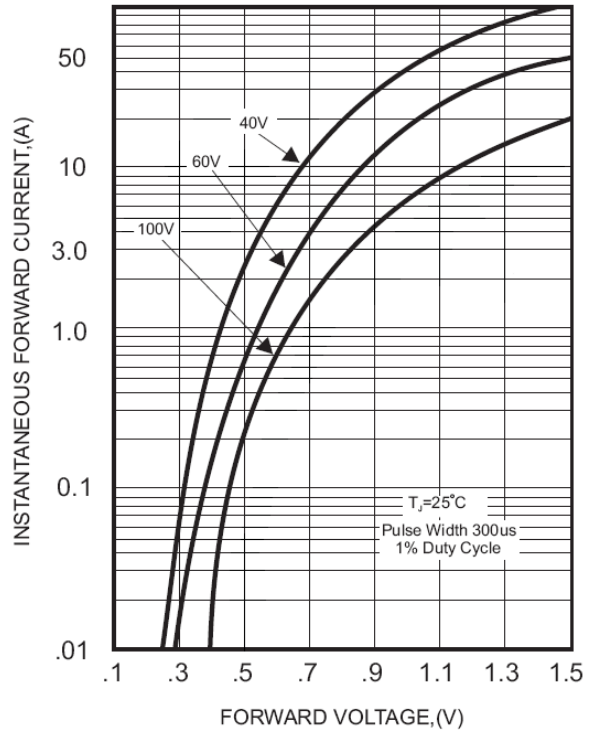


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

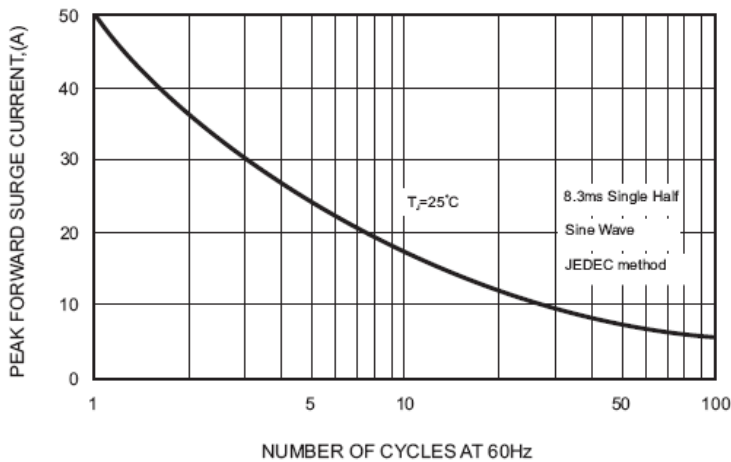


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

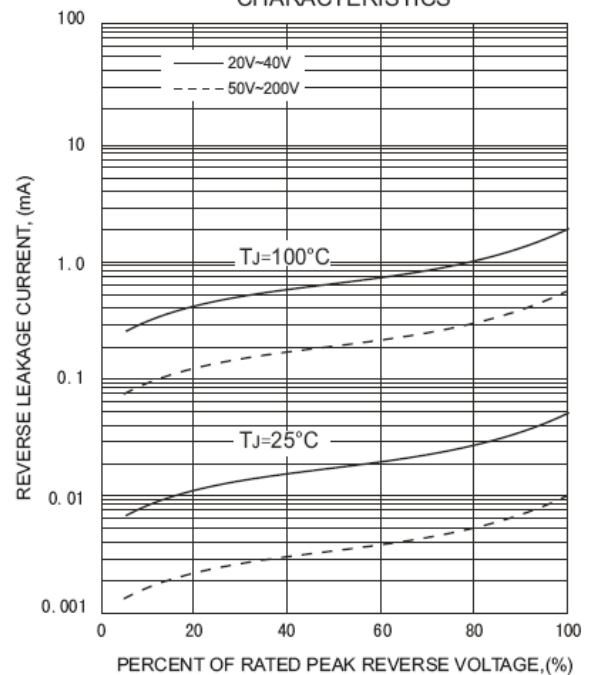


FIG.4-TYPICAL JUNCTION CAPACITANCE

