

SGC10DH THRU SGC10MH

● **FEATURES**

- * Halogen-free type
- * Lead free product, compliance to RoHS
- * GPRC (Glass passivated rectifier chip) inside
- * Glass passivated cavity-free junction
- * Lead less chip form, no lead damage
- * Low power loss, high efficiency
- * High current capability
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

● **APPLICATION**

- * General purpose rectification
- * Surge absorption

● **MECHANICAL DATA**

Case : Packed with FRP substrate and epoxy underfilled

Terminals : Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.

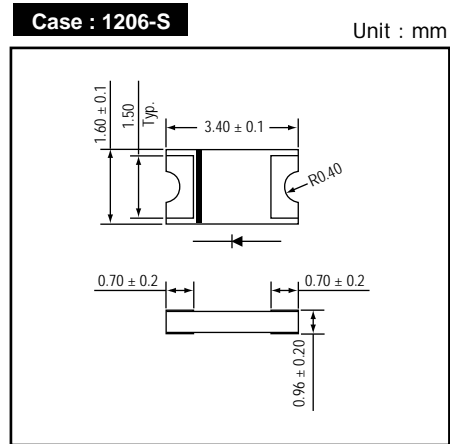
Polarity : Cathode Band, Laser marking

Weight : 0.012 gram

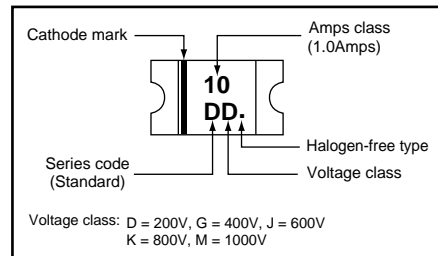
● **PACKING**

- * 3,000 pieces per 7" (178mm ± 2mm) reel
- * 4 reels per box
- * 6 boxes per carton

● **OUTLINE DIMENSIONS**



● **MARKING**



Absolute Maximum Ratings (Ta = 25 °C)

| ITEM | Symbol | Rating | | | | | Unit |
|--|--------|-------------|---------|---------|---------|---------|------|
| | | SGC10DH | SGC10GH | SGC10JH | SGC10KH | SGC10MH | |
| Repetitive peak reverse voltage | VRRM | 200 | 400 | 600 | 800 | 1000 | V |
| Average forward current | IF(AV) | 1.0 | | | | | A |
| Peak forward surge current (8.3ms single half sine-wave) | IFSM | 15 | | | | | |
| Operating junction temperature Range | Tj | -65 to +175 | | | | | °C |
| Storage temperature Range | TSTG | -65 to +175 | | | | | |

Electrical characteristics (Ta = 25 °C)

| ITEM | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|---------------------------------|---------|-----------------------------|------|------|------|------|
| Forward voltage | VF | IF = 1.0A | - | 0.93 | 1.00 | V |
| Repetitive peak reverse current | IRRM | VR = Max. VRRM , Ta = 25 °C | - | 0.08 | 2 | uA |
| Junction capacitance | Cj | VR = 4V, f = 1.0 MHz | - | 12 | - | pF |
| Thermal resistance | Rth(JA) | Junction to ambient (NOTE) | - | 80 | - | °C/W |
| | Rth(JL) | Junction to lead (NOTE) | - | 40 | - | |

NOTES : Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

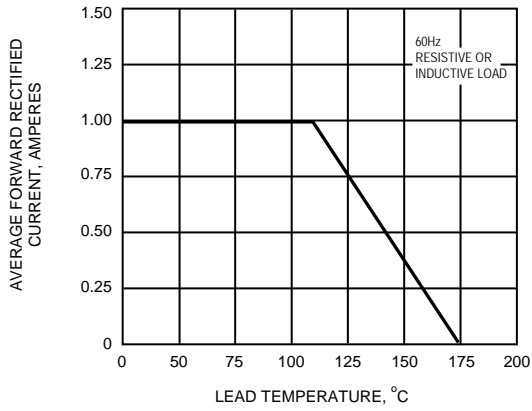


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

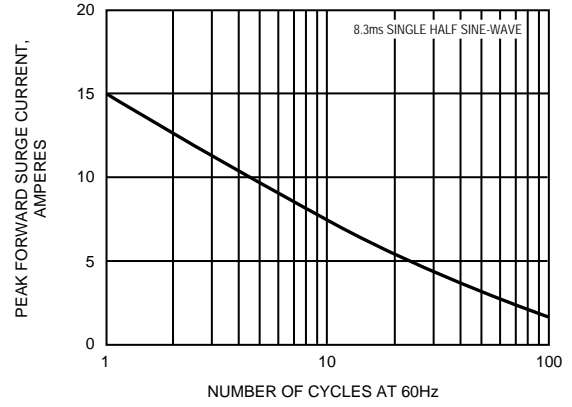


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

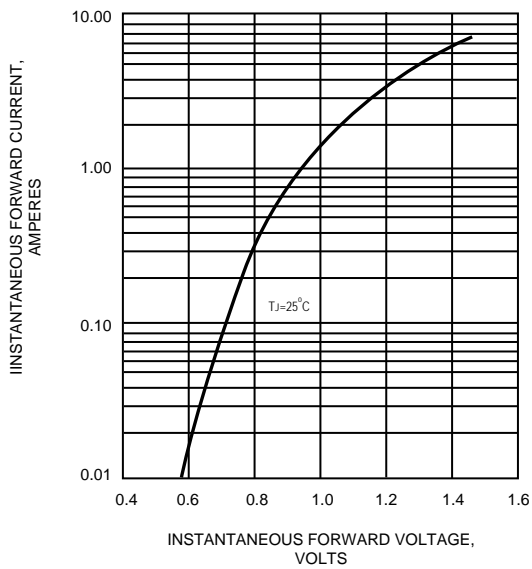


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

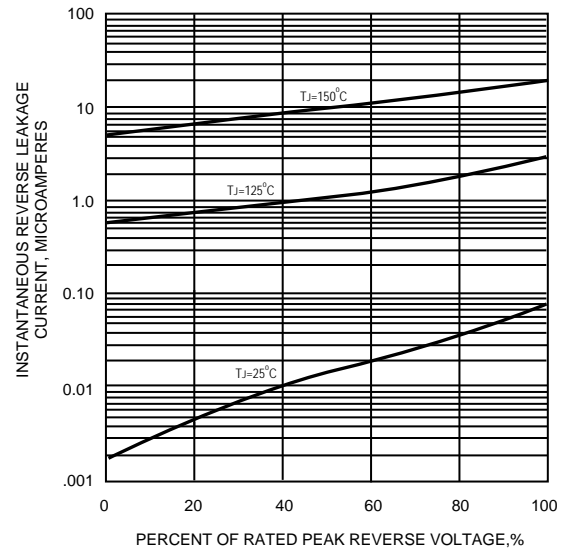


FIG.5 - TYPICAL JUNCTION CAPACITANCE

