

UGC10DH THRU UGC10KH

● **FEATURES**

- * Halogen-free type
- * Compliance to RoHS product
- * 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**

- * Switching mode power supply applications
- * Portable equipment battery applications
- * General rectification
- * DC / DC Converter
- * Telecommunication

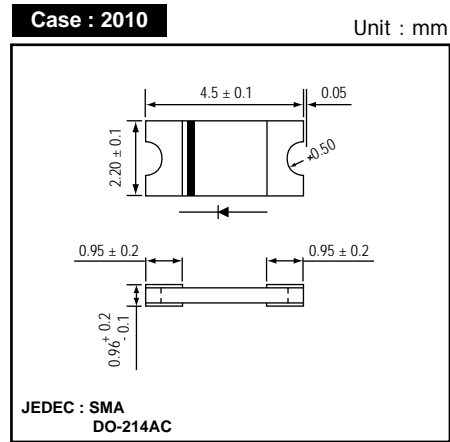
● **MECHANICAL DATA**

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 : 0.02 gram

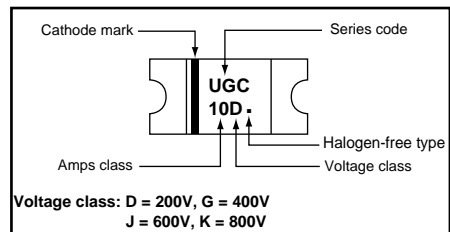
● **PACKING**

- * 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 | Conditions | UGC10 | | | | Unit |
|--|----------|-----------------------------------|-------------|-----|-----|-----|------|
| | | | DH | GH | JH | KH | |
| Repetitive peak reverse voltage | VRRM | | 200 | 400 | 600 | 800 | V |
| Average forward current | IF(AV) | | 1.0 | | | | A |
| Peak forward surge current | IFSM | 8.3ms single half sine-wave | 30 | | 25 | | A |
| Reverse recovery time | Trr | IF = 0.5A, IR = 1.0A, Irr = 0.25A | 35 | | | | nS |
| Operating junction and storage temperature Range | Tj, TSTG | | -65 to +175 | | | | °C |

Electrical characteristics

| ITEM | Symbol | Conditions | Type | Min. | Typ. | Max. | Unit |
|---------------------------------|---------|-----------------------------|---------|------|------|------|------|
| Forward voltage | VF | IF = 1.0A | UGC10DH | - | 0.94 | 0.95 | V |
| | | | UGC10GH | - | 1.15 | 1.25 | |
| | | | UGC10JH | - | 1.40 | 1.70 | |
| | | | UGC10KH | - | 1.65 | 2.20 | |
| Repetitive peak reverse current | IRRM | VR = Max. VRRM , Ta = 25 °C | | - | 0.20 | 5 | uA |
| Junction capacitance | Cj | VR = 4V, f = 1.0 MHz | | - | 8.0 | - | pF |
| Thermal resistance | Rth(JA) | Junction to ambient (NOTE) | | - | 70 | - | °C/W |
| | Rth(JL) | Junction to lead (NOTE) | | - | 10 | - | |

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

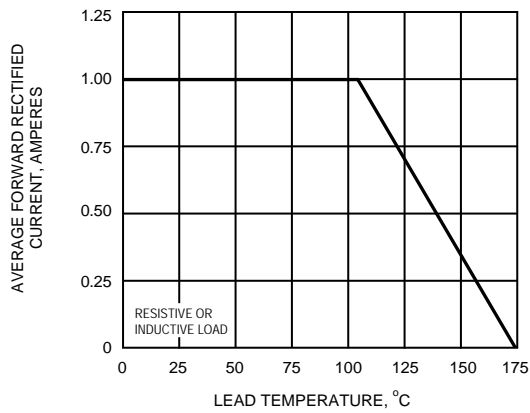


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

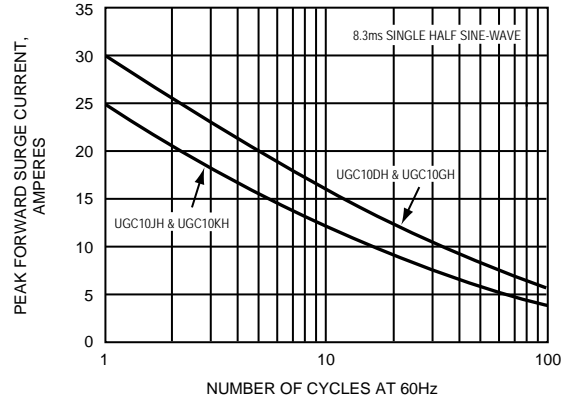


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

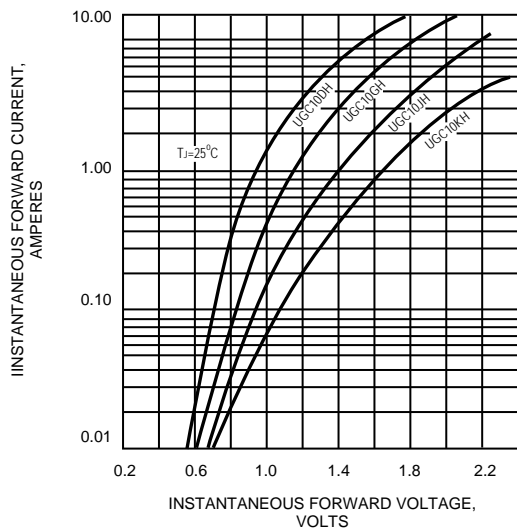


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

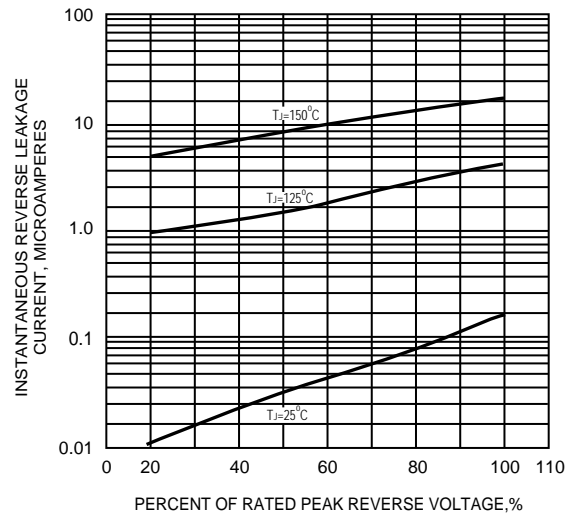


FIG.5 - TYPICAL JUNCTION CAPACITANCE

