



UGC20DH THRU UGC20KH

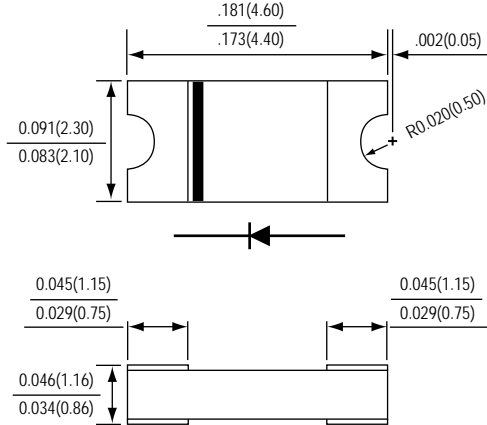
SURFACE MOUNT GLASS PASSIVATED JUNCTION ULTRAFAST EFFICIENT RECTIFIER

Reverse Voltage - 200 to 800 Volts

Forward Current - 2.0 Amperes

PATENTED

2010



*Dimensions in inches and (millimeters)

SuperChipTM
SUPEREX IITM



FEATURES

- * Halogen-free type
- * Lead free product, compliance to RoHS
- * Leadless chip form, no lead damage
- * Lead-free solder joint, no wire bond & lead frame
- * Low profile package
- * For surface mounted applications
- * Built-in strain relief
- * Low power loss, High efficiency
- * High current capability
- * High surge capacity
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| Ratings at 25 °C ambient temperature unless otherwise specified. | SYMBOLS | UGC20 | | | | UNITS |
|---|---------|-------------|------|-----|-----|-------|
| | | DH | GH | JH | KH | |
| Maximum repetitive peak reverse voltage | VRRM | 200 | 400 | 600 | 800 | Volts |
| Maximum RMS voltage | VRMS | 140 | 280 | 420 | 560 | Volts |
| Maximum DC blocking voltage | VDC | 200 | 400 | 600 | 800 | Volts |
| Maximum average forward rectified current at TL=110°C | I (AV) | 2.0 | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load | IFSM | 50 | | | | Amps |
| Maximum instantaneous forward voltage at 2.0 A | VF | 0.95 | 1.25 | 1.7 | 2.2 | Volts |
| Maximum DC reverse current at rated DC blocking voltage | IR | 5 100 | | | | uA |
| Maximum reverse recovery time (NOTE 1) | trr | 35 | | | | nS |
| Typical junction capacitance (NOTE 2) | CJ | 25 | | | | pF |
| Operating junction and storage temperature range | TJ,TSTG | -55 to +175 | | | | °C |

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=1.0A, Irr=0.25A
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

RATINGS AND CHARACTERISTIC CURVES UGC20DH THRU UGC20KH

FIG. 1 - FORWARD CURRENT DERATING CURVE

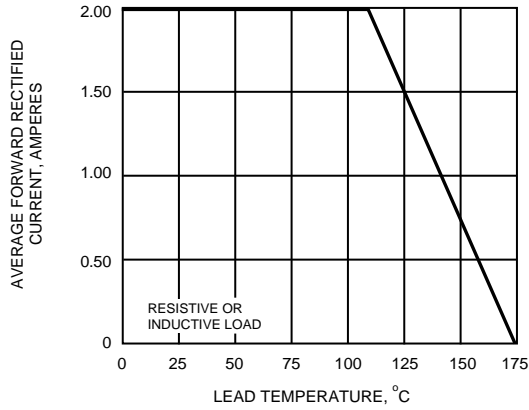


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

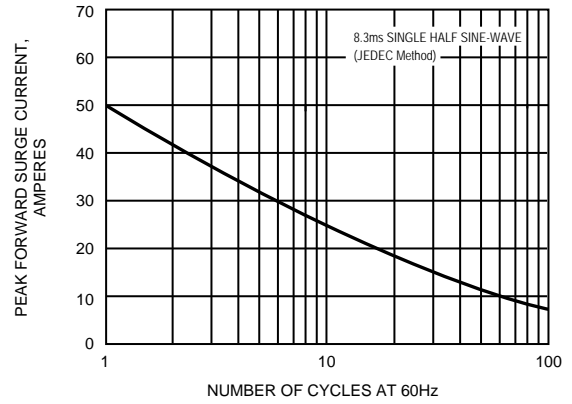


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

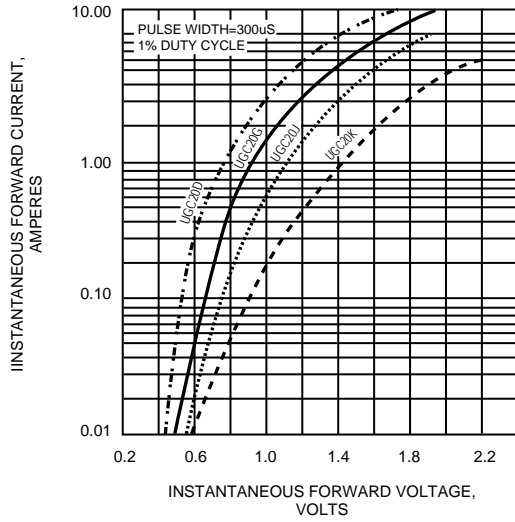


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

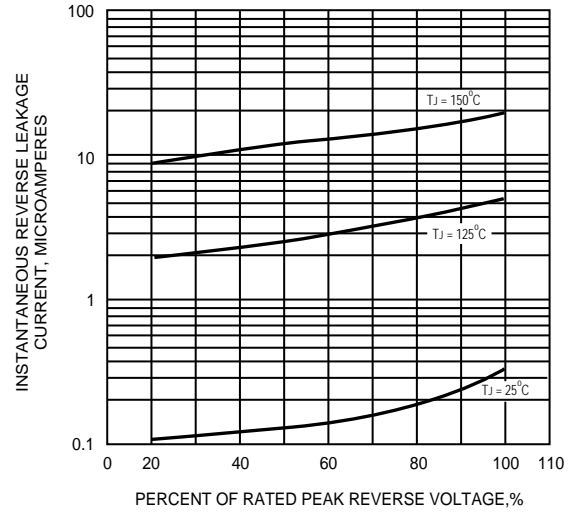


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

