



RGF10A THRU RGF10M

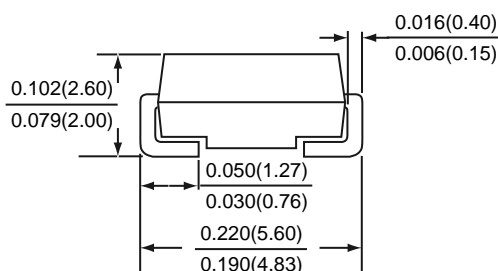
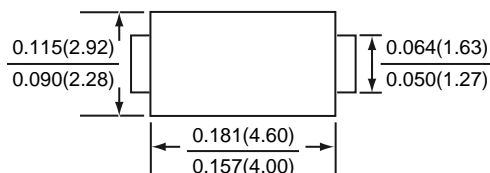
SURFACE MOUNT GLASS PASSIVATED JUNCTION FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0 Ampere

PATENTED

DO-214AC



*Dimensions in inches and (millimeters)

SUPEREX II™

FEATURES

- * GPRC (Glass Passivated Rectifier Chip) inside
- * Glass passivated cavity-free junction
- * Ideal for surface mount automotive applications
- * Fast switching for high efficiency
- * Built-in strain relief
- * Easy pick and place
- * High temperature soldering guaranteed: 260°C/10 seconds, at terminals
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic over passivated chip

Terminals : Solder plated , solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Mounting Position : Any

Weight : 0.002 ounces , 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| Ratings at 25°C ambient temperature unless otherwise specified. | SYMBOLS | RGF10 | | | | | | | | | | UNITS | |
|--|--------------|---------------|-----|-----|-----|-----|-----|-----|-----|------|------|--------|----|
| | | A | B | D | G | J | JA | K | KA | M | MA | | |
| Maximum repetitive peak reverse voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 600 | 800 | 800 | 1000 | 1000 | Volts | |
| Maximum RMS voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 420 | 560 | 560 | 700 | 700 | Volts | |
| Maximum DC blocking voltage | VDC | 50 | 100 | 200 | 400 | 600 | 600 | 800 | 800 | 1000 | 1000 | Volts | |
| Maximum average forward rectified current TA=75°C | I (AV) | 1.0 | | | | | | | | | | Amps | |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM | 30 | | | | | | | | | | Amps | |
| Maximum instantaneous forward voltage at 1.0 A | VF | 1.3 | | | | | | | | | | Volts | |
| Maximum full load reverse current, full cycle average , 0.375" (9.5mm) lead lengths at TA=55°C | IR (AV) | 100 | | | | | | | | | | uA | |
| Maximum DC reverse current at rated DC blocking voltage | IR | 5 30 50 | | | | | | | | | | uA | |
| Maximum reverse recovery time (NOTE 1) | trr | 150 | | | 250 | | 150 | | 500 | | 300 | | nS |
| Typical junction capacitance (NOTE 2) | CJ | 15 | | | | | | | | | | pF | |
| Typical thermal resistance (NOTE 3) | RθJA RθJL | 105 32 | | | | | | | | | | °C / W | |
| Operating junction and storage temperature range | TJ,TSTG | -65 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

(3) 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.

RATINGS AND CHARACTERISTIC CURVES RGF10A THRU RGF10M

FIG.1 - FORWARD CURRENT DERATING CURVE

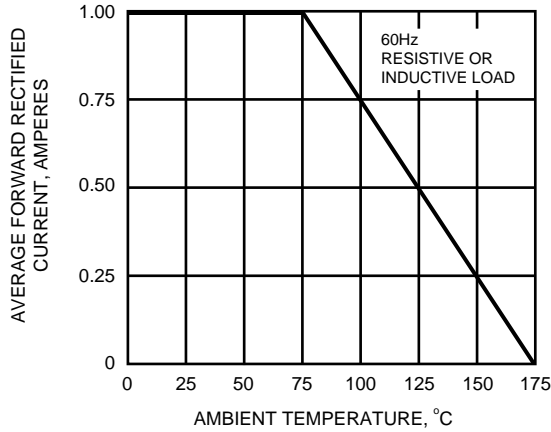


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

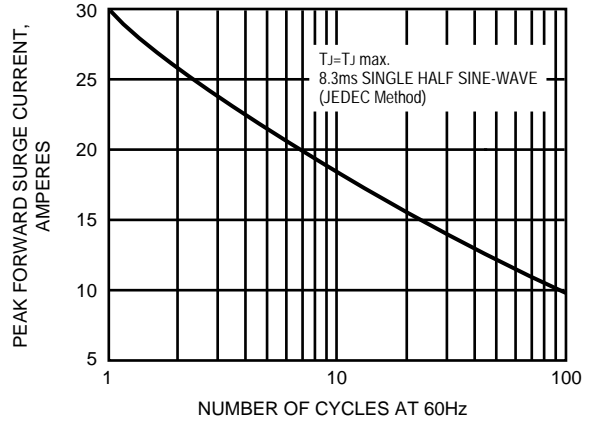


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

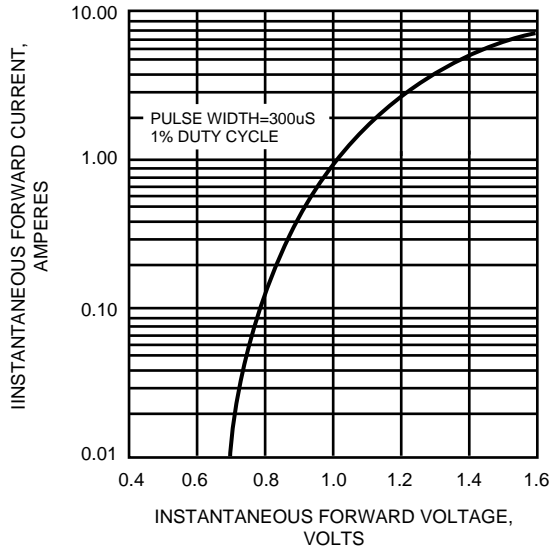


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

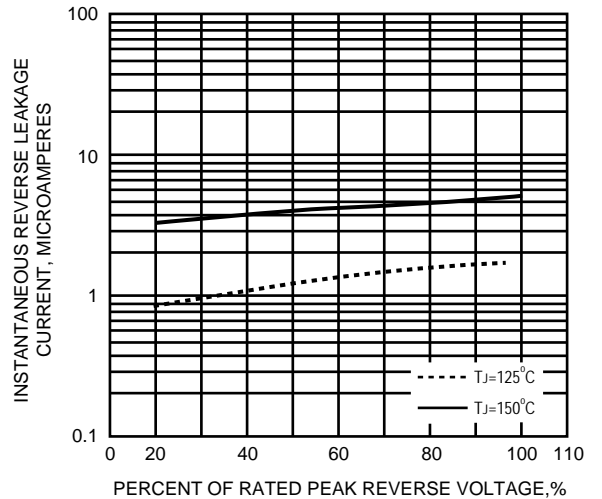


FIG.5 - TYPICAL JUNCTION CAPACITANCE

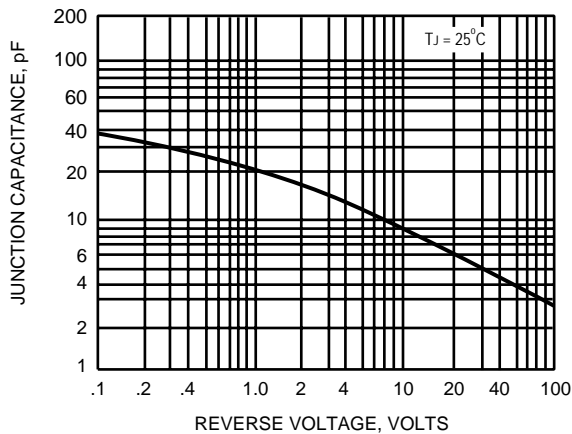


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

