



GP30A THRU GP30M

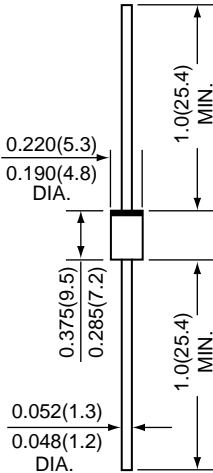
SINTERED GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 3.0 Amperes

PATENTED

DO-201AD



*Dimensions in inches and (millimeters)

SUPEREX II™



FEATURES

- * GPRC (Glass Passivated Rectifier Chip) inside
- * Glass passivated cavity-free junction
- * Capable of meeting environmental standards of MIL-S-19500
- * 3.0 Amperes operation at TA=55°C with no thermal runaway
- * High temperature soldering guaranteed: 260°C/10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3 kg) tension
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

MECHANICAL DATA

Case : JEDEC DO-201AD molded plastic over glass body

Terminals : Tin Plated, solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Weight : 0.04 ounces , 1.12 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| Ratings at 25 °C ambient temperature unless otherwise specified. | SYMBOLS | GP30 | | | | | | | UNITS |
|--|----------------|----------------|-----|-----|-----|-----|-----|------|--------|
| | | A | B | D | G | J | K | M | |
| Maximum repetitive peak reverse voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at TA=55°C | I (AV) | 3.0 | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM | 125 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 3.0 A | VF | 1.0 | | | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage TA=25°C TA=125°C TA=150°C | IR | 5 50 100 | | | | | | | uA |
| Typical junction capacitance (NOTE 1) | CJ | 40 | | | | | | | pF |
| Typical thermal resistance (NOTE 2) | R θJA R θJL | 20 10 | | | | | | | °C / W |
| Operating junction and storage temperature range | TJ,TSTG | -65 to +175 | | | | | | | °C |

NOTES : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(2) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead lengths, P.C.B. mounted.

RATINGS AND CHARACTERISTIC CURVES GP30A THRU GP30M

FIG.1 - FORWARD CURRENT DERATING CURVE

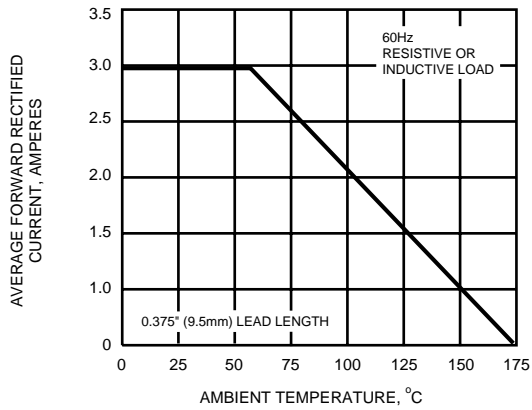


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

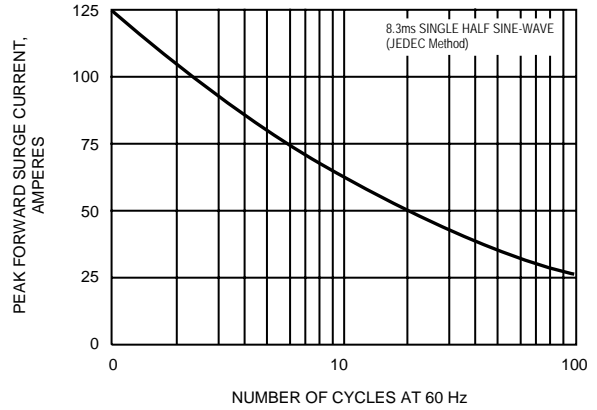


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

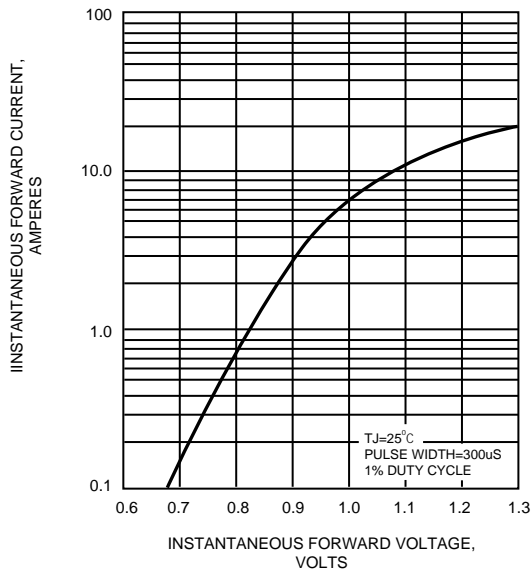


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

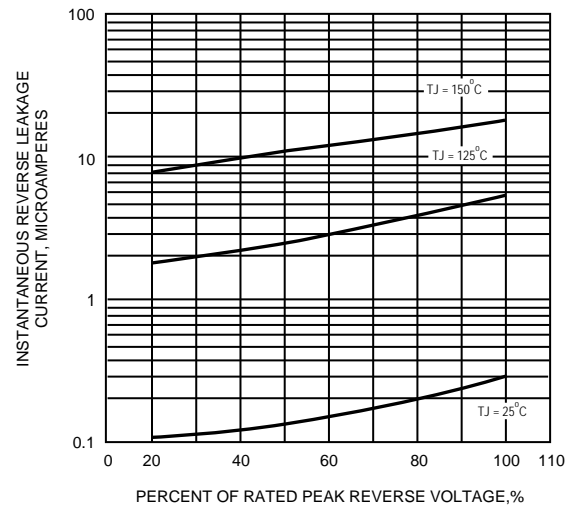


FIG.5 - TYPICAL JUNCTION CAPACITANCE

