

**TAYCHIPST**

SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

GF1A THRU GF1M

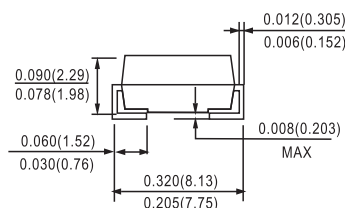
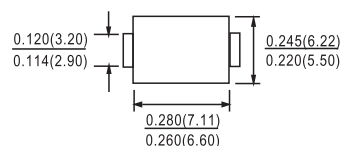
50V-1000V 1.0A

FEATURES

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- Ideal for surface mount automotive applications
- High temperature metallurgically bonded construction
- Glass passivated cavity-free junction
- High temperature soldering guaranteed: 450°C/5 seconds at terminals
- Complete device submersible temperature of 265°C for 10 seconds in solder bath

MECHANICAL DATA**Case:** JEDEC DO-214BA molded plastic over glass body**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026**Polarity:** Color band denotes cathode end**Mounting Position:** Any**Weight:** 0.0048 ounces, 0.120 gram

DO-214AB(SMC)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | GF1A | GF1B | GF1D | GF1G | GF1J | GF1K | GF1M | UNITS | |
|---|--------------------------------------|-------------|------|------|------|------|------|------|-------|------|
| Device marking code | | GA | GB | GD | GG | GJ | GK | GM | | |
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts | |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts | |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts | |
| Maximum average forward rectified current at T _L =125°C | I _(AV) | 1.0 | | | | | | | Amp | |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 30.0 | | | | | | | Amps | |
| Maximum instantaneous forward voltage at 1.0A | V _F | 1.10 | | | | | 1.20 | | Volts | |
| Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C | I _R | 5.0 | | | | | 50.0 | | | μA |
| Typical reverse recovery time (NOTE 1) | t _{rr} | 2.0 | | | | | | | μs | |
| Typical junction capacitance (NOTE 2) | C _J | 15.0 | | | | | | | pF | |
| Typical thermal resistance (NOTE 3) | R _{θJA} R _{θJL} | 80.0 | | | | | 26.0 | | | °C/W |
| Operating junction and storage temperature range | T _J , T _{STG} | -65 to +175 | | | | | | | °C | |

NOTES:(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A(2) Measured at 1.0 MHz and applied V_R=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 GF1A THRU GF1M

FIG. 1 - FORWARD CURRENT DERATING CURVE

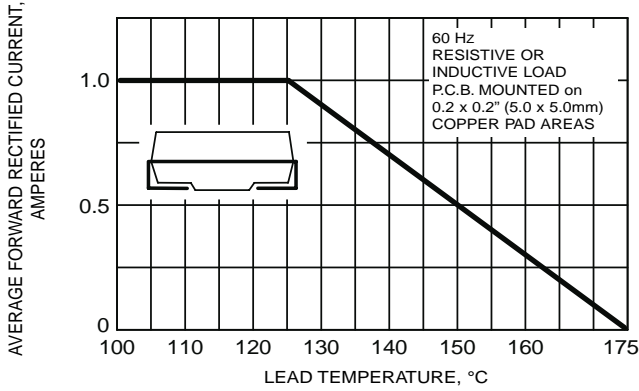


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

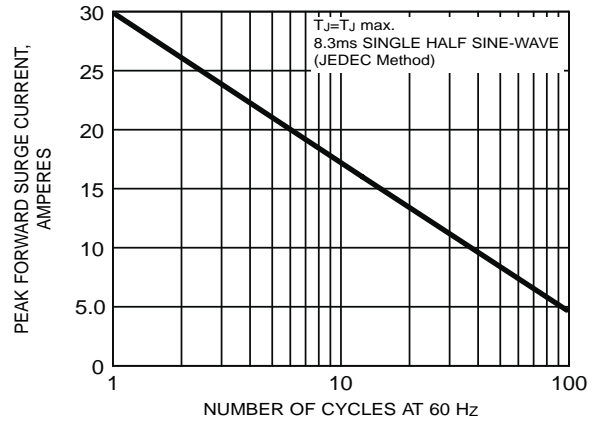


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

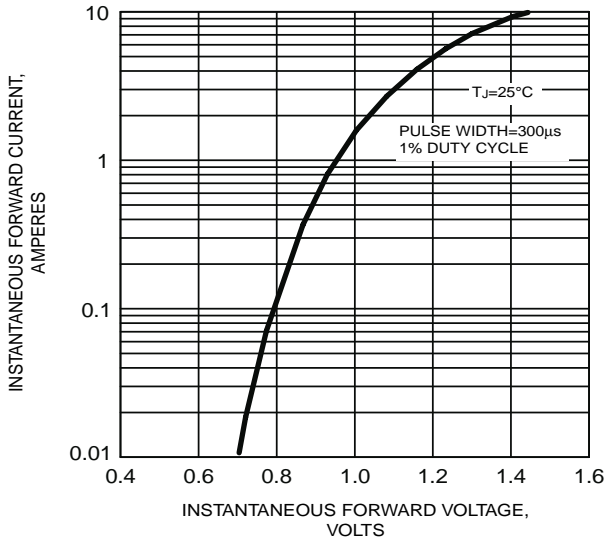


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

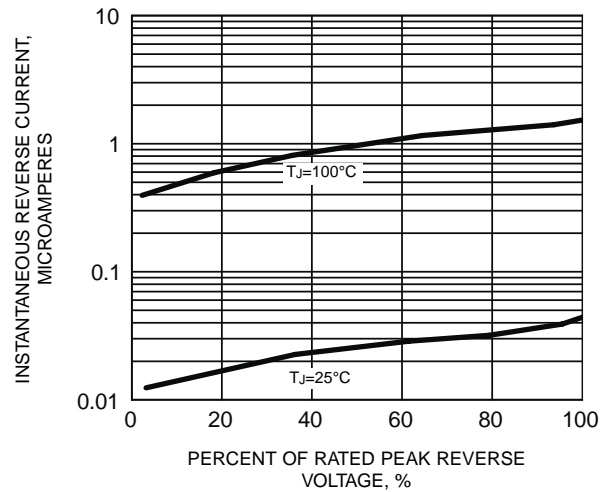


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

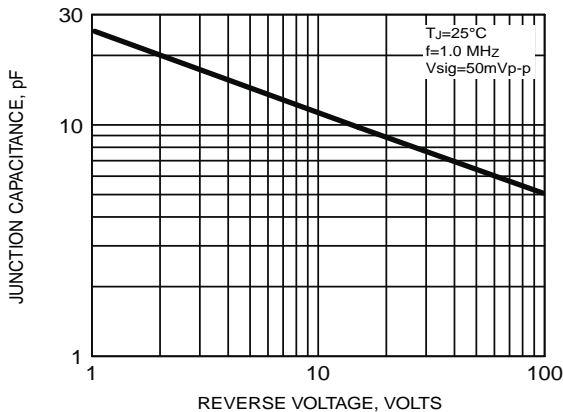


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

