

RGL34A THRU RGL34J

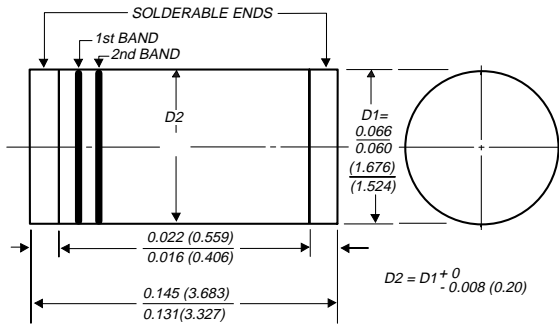
SURFACE MOUNT GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

Reverse Voltage - 50 to 600 Volts

Forward Current - 0.5 Ampere

PATENTED*

DO-213AA



1st band denotes type and polarity
2nd band denotes voltage type

Dimensions in inches and (millimeters)

* Glass-plastic encapsulation technique is covered by
Patent No.3,996,602 and brazed-lead assembly by Patent No.3,930,306

SUPERRECTIFIER®

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mount applications
- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free junction
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ Fast switching for high efficiency
- ◆ High temperature soldering guaranteed: 450°C/5 seconds at terminals. Complete device submersible temperature of 260°C for 10 seconds in solder bath



MECHANICAL DATA

Case: JEDEC DO-213AA molded plastic over glass body
Terminals: Plated terminals, solderable per MIL-STD-750, Method 2026

Polarity: Two bands indicate cathode end - 1st band denotes device type and 2nd band denotes repetitive peak reverse voltage rating

Mounting Position: Any

Weight: 0.0014 ounce, 0.036 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| Fast switching device: 1st band is Red | SYMBOLS | RGL34A | RGL34B | RGL34D | RGL34G | RGL34J | UNITS |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------|--------|--------|--------|--------|-------|
| Polarity color bands (2nd Band) | | Gray | Red | Orange | Yellow | Green | |
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | Volts |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | Volts |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | Volts |
| Maximum average forward rectified current at T _T =55°C | I _(AV) | 0.5 | | | | | Amp |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 10.0 | | | | | Amps |
| Maximum instantaneous forward voltage at 0.5A | V _F | 1.3 | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage T _A =25°C T _A =125°C | I _R | 5.0 50.0 | | | | | μA |
| Maximum full load reverse current, full cycle average T _A =55°C | I _{R(AV)} | 30.0 | | | | | μA |
| Maximum reverse recovery time (NOTE 1) | t _{rr} | 150 | | | | 250 | ns |
| Typical junction capacitance (NOTE 2) | C _J | 4.0 | | | | | pF |
| Maximum thermal resistance (NOTE 3) (NOTE 4) | R _{θJA} R _{θJT} | 150.0 70.0 | | | | | °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 reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient, 0.2 x 0.2" (5.0 x 5.0mm) copper pads to each terminal
- (4) Thermal resistance from junction to terminal, 0.2 x 0.2" (5.0 x 5.0mm) copper pads to each terminal

RATINGS AND CHARACTERISTIC CURVES RGL34A THRU RGL34J

FIG. 1 - FORWARD CURRENT DERATING CURVE

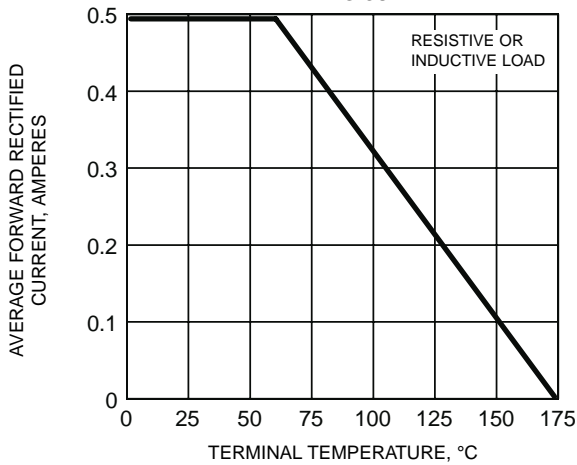


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

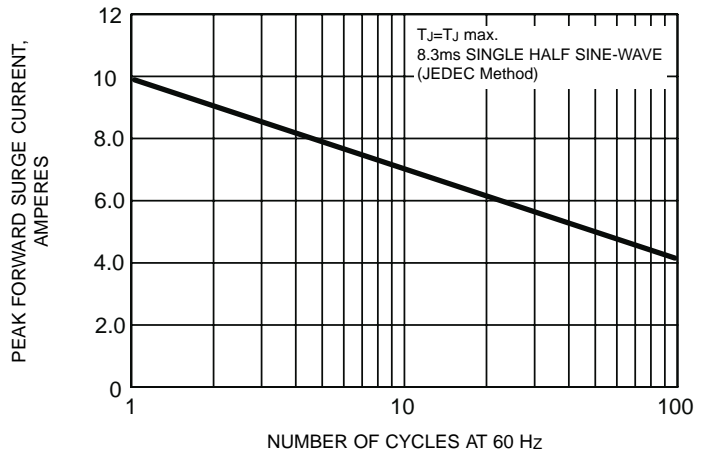


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

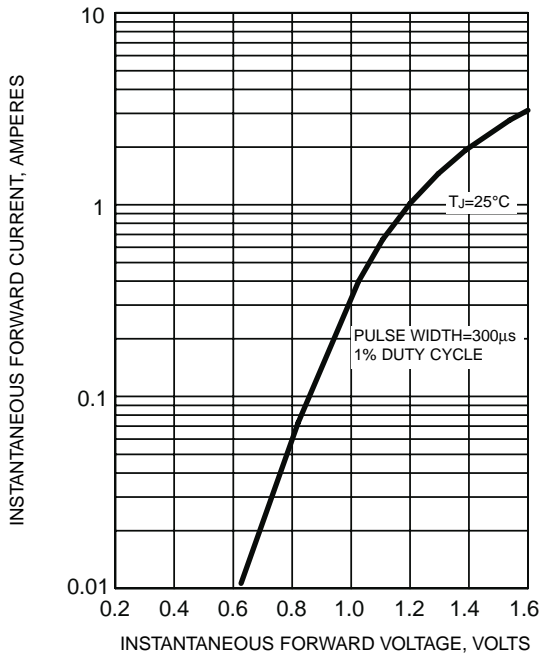


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

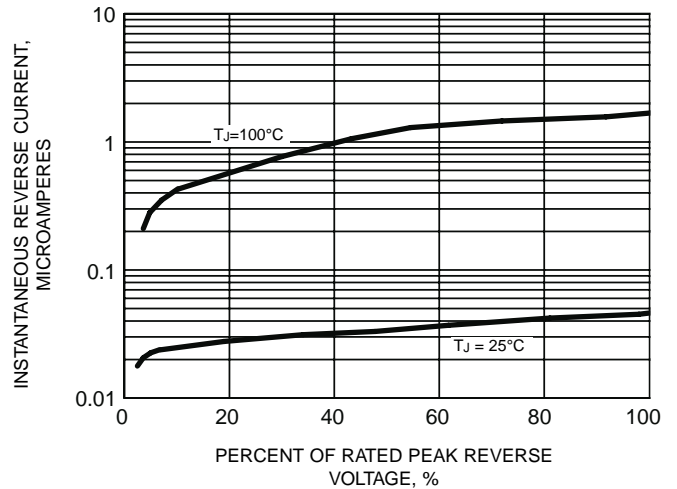


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

