

### SURFACE MOUNT RECTIFIER

REVERSE VOLTAGE: 50 - 1000 V  
CURRENT: 1.0 A

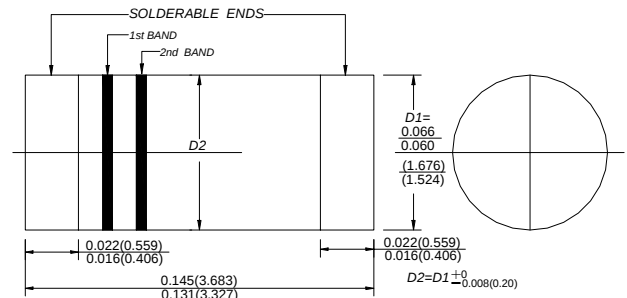
#### FEATURES

- ◇ Plastic package has underwriters laboratory flammability classifications
- ◇ For surface mounted applications
- ◇ Low profile package
- ◇ Built-in strain relief, ideal for automated placement
- ◇ Glass passivated chip junction
- ◇ High temperature soldering:  
250°C/10 seconds at terminals

#### MECHANICAL DATA

- ◇ Case: JEDEC DO-213AA, molded plastic over passivated chip
- ◇ Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.0014 ounces, 0.036 gram

#### DO - 213AA



inch(mm)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

|                                                                                                             |                    | GL34A           | GL34B | GL34D  | GL34G  | GL34J | GL34K | GL34M  | UNITS |
|-------------------------------------------------------------------------------------------------------------|--------------------|-----------------|-------|--------|--------|-------|-------|--------|-------|
| Polarity color bands (2nd Band)                                                                             |                    | Gray            | Red   | Orange | Yellow | Green | Blue  | Violet |       |
| Maximum recurrent peak reverse voltage                                                                      | V <sub>RRM</sub>   | 50              | 100   | 200    | 400    | 600   | 800   | 1000   | V     |
| Maximum RMS voltage                                                                                         | V <sub>RWS</sub>   | 35              | 70    | 140    | 280    | 420   | 560   | 700    | V     |
| Maximum DC blocking voltage                                                                                 | V <sub>DC</sub>    | 50              | 100   | 200    | 400    | 600   | 800   | 1000   | V     |
| Maximum average forward rectified current<br>@T <sub>L</sub> =75 °C                                         | I <sub>F(AV)</sub> | 0.5             |       |        |        |       |       |        | A     |
| Peak forward surge current<br>8.3ms single half-sine-wave superimposed<br>on rated load (JEDEC Method)      | I <sub>FSM</sub>   | 10.0            |       |        |        |       |       |        | A     |
| Maximum instantaneous forward voltage at 0.5 A                                                              | V <sub>F</sub>     | 1.2             |       |        |        | 1.3   |       |        | V     |
| Maximum DC reverse current @T <sub>A</sub> =25°C<br><br>at rated DC blocking voltage @T <sub>A</sub> =125°C | I <sub>R</sub>     | 5.0<br><br>50.0 |       |        |        |       |       |        | μA    |
| Typical junction capacitance(NOTE 2)                                                                        | C <sub>J</sub>     | 4.0             |       |        |        |       |       |        | pF    |
| Typical reverse recovery time(NOTE3)                                                                        | t <sub>rr</sub>    | 1.5             |       |        |        |       |       |        | μS    |
| Typical thermal resitance (NOTE 4)                                                                          | R <sub>θJA</sub>   | 150             |       |        |        |       |       |        | °C/W  |
| Operating junction temperature range                                                                        | T <sub>J</sub>     | -55-----+150    |       |        |        |       |       |        | °C    |
| Storage temperature range                                                                                   | T <sub>STG</sub>   | -55-----+150    |       |        |        |       |       |        | °C    |

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0volts

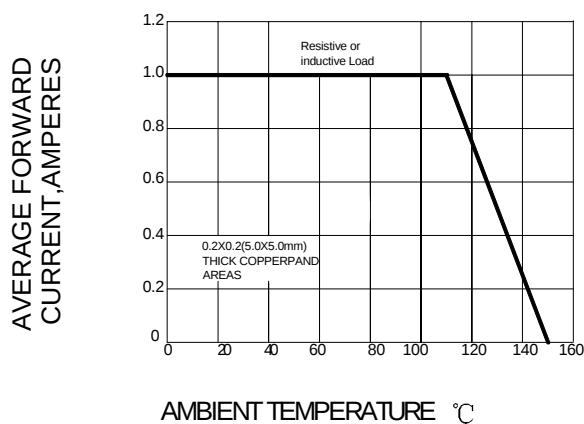
2. Thermal resistance from junction to ambient and junction to lead P.C.B mounted on 0.27"X0.27"(7.0X7.0mm2) copper pad areas

3. Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $t_{rr} = 0.25\text{A}$ .

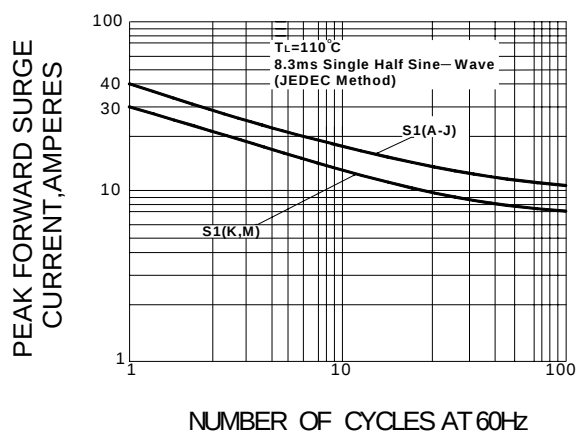
4. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27"X0.27"(7.0X7.0mm2) copper pad areas

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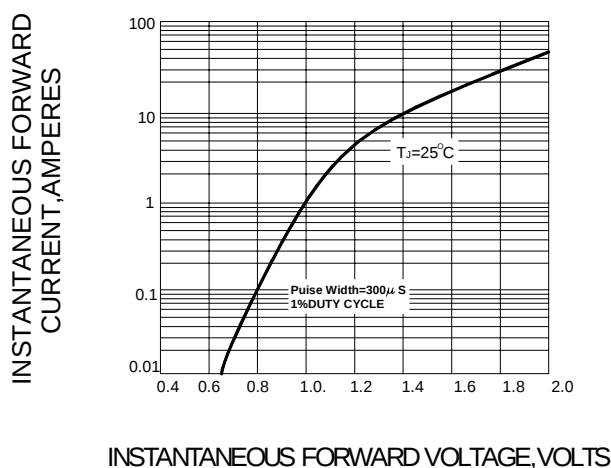
**FIG.1 – FORWARD DERATING CURVE**



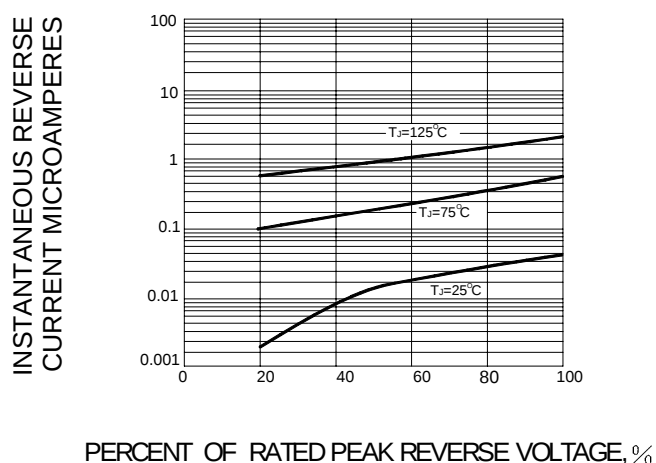
**FIG.2 PEAK FORWARD SURGE CURRENT**



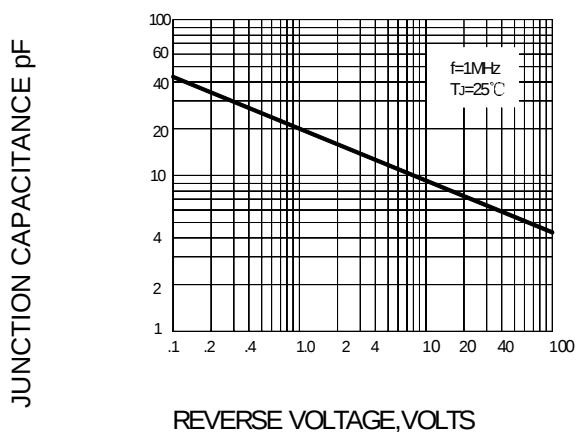
**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**



**FIG.6-TRANSIENT THERMAL IMPEDANCE**

