





3.0 Amp. Glass Passivated Ultrafast Recovery Rectifier

| | | | |
|---|--|--------------------------------|--|
|  <p>DO-201AD (DO-27)</p> | Voltage 50V to 600V | Current 3 A at 55 °C | |
| |  | | |
| | FEATURES <ul style="list-style-type: none"> Ultrafast recovery time for high efficiency Low power losses Low forward voltage drop High forward surge current capability Solder dip 260°C, 10s AEC-Q101 qualified Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C | |   RoHS COMPLIANT |
| | MECHANICAL DATA <ul style="list-style-type: none"> Case: DO-201AD (DO-27). Epoxy meets UL 94V-0 flammability rating. Polarity: Color band denotes cathode end. Terminals: Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test. | | |
| TYPICAL APPLICATIONS Used in high frequency rectifier of switching mode power supplies, inverters, freewheeling diodes, dc-to-dc converters, and other power switching application. | | | |

Maximun Ratings and Electrical Characteristics at 25 °C

| Marking Code | | EGP 30A | EGP 30B | EGP 30D | EGP 30F | EGP 30G | EGP 30J |
|--------------------|--|------------------|---------|---------|---------|---------|---------|
| V _{RRM} | Peak recurrent reverse voltage (V) | 50 | 100 | 200 | 300 | 400 | 600 |
| V _{RMS} | Maximum RMS voltage (V) | 35 | 70 | 140 | 210 | 280 | 420 |
| V _{DC} | Maximum DC blocking voltage (V) | 50 | 100 | 200 | 300 | 400 | 600 |
| I _{F(AV)} | Forward current at Tamb = 55 °C | 3 A | | | | | |
| I _{FRM} | Recurrent peak forward current | 30 A | | | | | |
| I _{FSM} | 8.3 ms. peak forward surge current (Jedec Method) | 125 A | | | | | |
| t _{rr} | Max. reverse recovery time from I _F = 0.5 A ; I _R = 1 A ; I _{RR} = 0.25 A | 50 ns | | | | | |
| C _j | Typical Junction Capacitance at 1 MHz and reverse voltage of 4V _{DC} | 90 pF | | | 45 pF | | |
| T _j | Operating temperature range | - 65 to + 175 °C | | | | | |
| T _{stg} | Storage temperature range | - 65 to + 175 °C | | | | | |
| E _{RSM} | Maximum non repetitive peak reverse avalanche energy. I _R = 1 A ; T _j = 25 °C | 20 mJ | | | | | |

Electrical Characteristics at Tamb = 25 °C

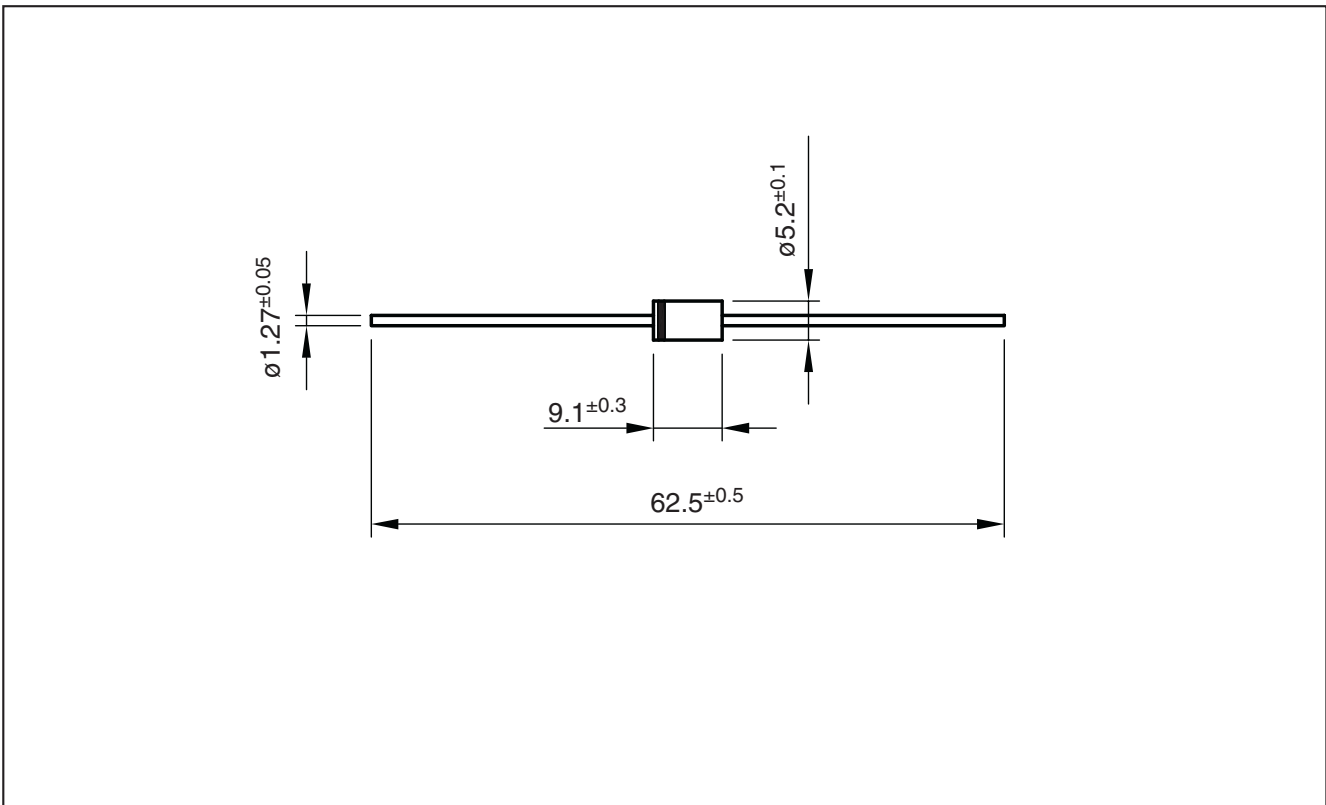
| | | | |
|--------------------|---|---------|--------|
| V _F | Max. forward voltage drop at I _F = 3 A | 0.95 V | 1.25 V |
| I _R | Max. reverse current at V _{RRM} | 5 µA | |
| | at 25 °C | 50 µA | |
| | at 150 °C | 50 µA | |
| R _{thj-a} | Max. thermal resistance (l = 10 mm.) | 30 °C/W | |

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Ordering information

| PREFERRED P/N | PACKAGE CODE | DELIVERY MODE | BASE QUANTITY | UNIT WEIGHT (g) |
|---------------|--------------|----------------------------|---------------|-----------------|
| EGP30G AMP | AMP | AMMO BOX | 1,500 | 1.100 |
| EGP30G TR | TR | 13" diameter tape and reel | 1,500 | 1.100 |

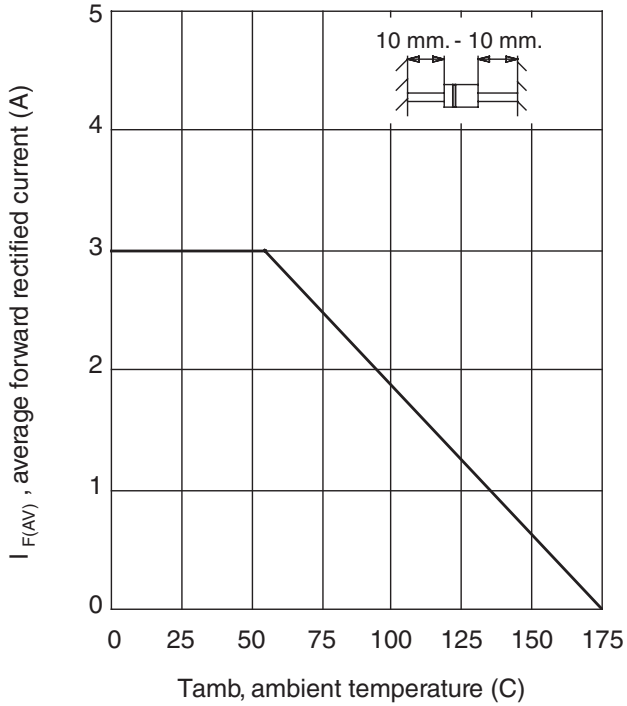
Package Outline Dimensions: (mm) DO-201AD (DO-27)



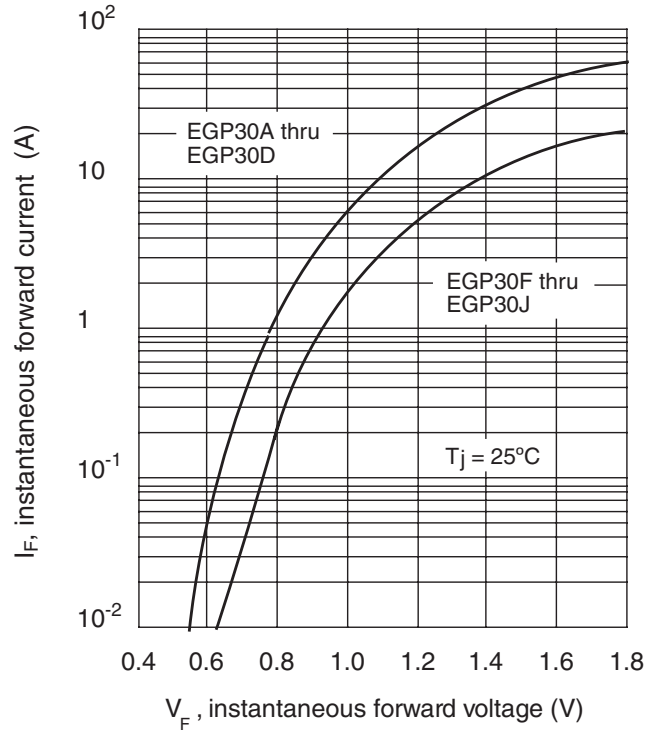
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)

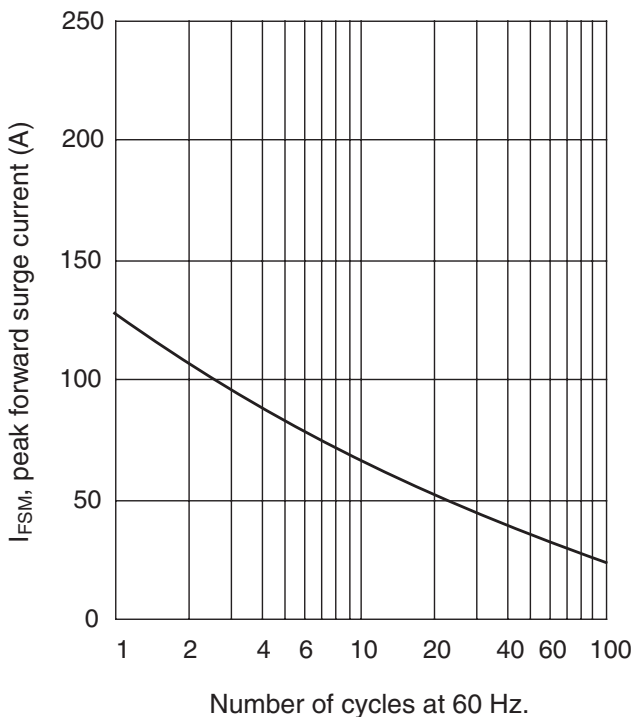
FORWARD CURRENT DERATING CURVE



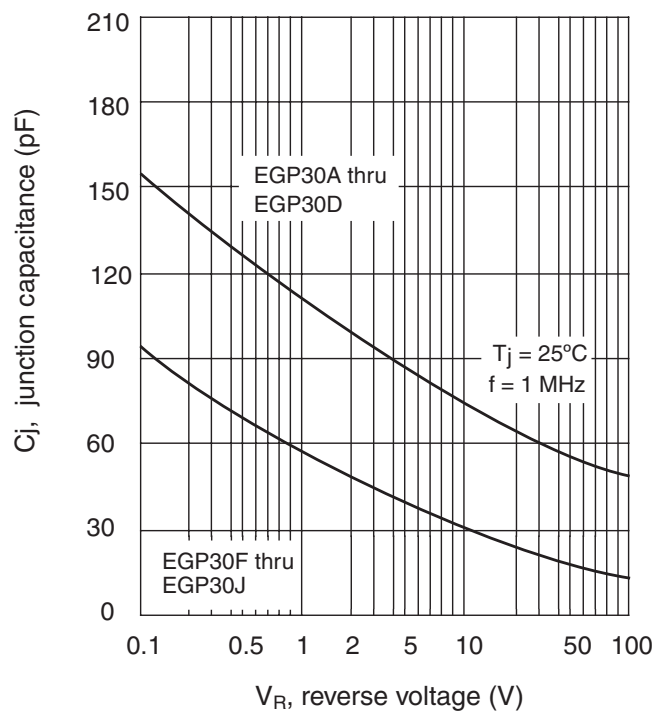
TYPICAL FORWARD CHARACTERISTIC



MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE



3.0 Amp. Glass Passivated Ultrafast Recovery Rectifier**Revision History**

| Date | Revision | Description of Changes |
|-------------|-----------------|-------------------------------|
| Jun-2009 | 0 | Original Data Sheet |
| Jun-2016 | 1 | Format update |

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