3.0 Amp. Glass Passivated Fast Recovery Rectifier

DO-201AD (DO-27)

Voltage 50V to 1000V

Current 3.0 A at 55 °C

HYPERECTIFIER®

FEATURES

- Low profile package
- Low power losses, high efficiency
- High surge current capability
- Cavity-free glass-passivated junction
- Low forward voltage drop
- Solder dip 260°C, 10s
- AEC-Q101 qualified
- Fast switching for high efficiency
- 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

Pb

e3

RoHS COMPLIANT

MECHANICAL DATA

- **Case:** DO-214AD (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

For use in fast switching rectification of power supply, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

Maximun Ratings and Electrical Characteristics at 25 °C

		RGP 30A	RGP 30B	RGP 30D	RGP 30G	RGP 30J	RGP 30K	RGP 30M	RGP 30MT
V_{RRM}	Peak recurrent reverse voltage (V)	50	100	200	400	600	800	1000	1000
$I_{F(AV)}$	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	150 ns				250 ns	500 ns		300 ns
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 = 1A ; T_J = 25 °C	20 mJ							

Electrical Characteristics at Tamb = 25 °C

V_F	Maximum Forward Voltage Drop at I_F = 3 A		1.3 V
I_R	Maximun Reverse Current at V_{RRM}	at 25 °C	5 µA
		at 125 °C	100 µA
$R_{th(j-a)}$	Thermal Resistance (l = 10mm.)	Max.	30 °C/W
		Typ.	15 °C/W

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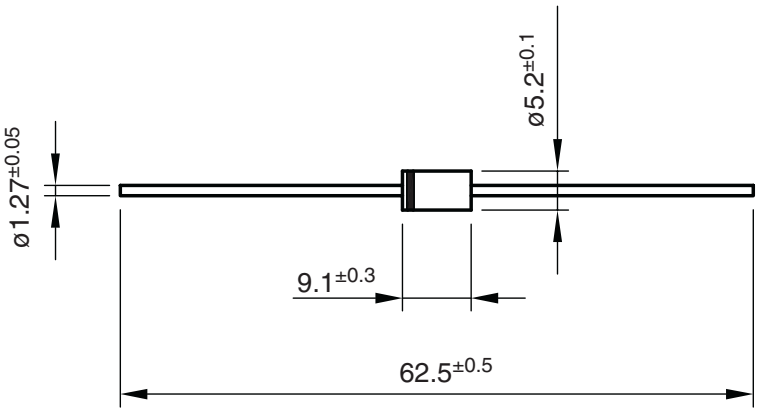
Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
RGP30G AMP	AMP	AMMO BOX	1,500	1.100

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



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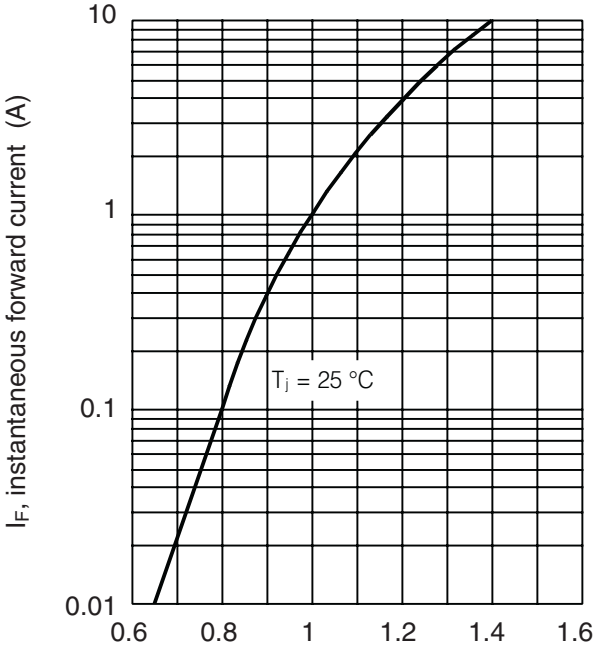
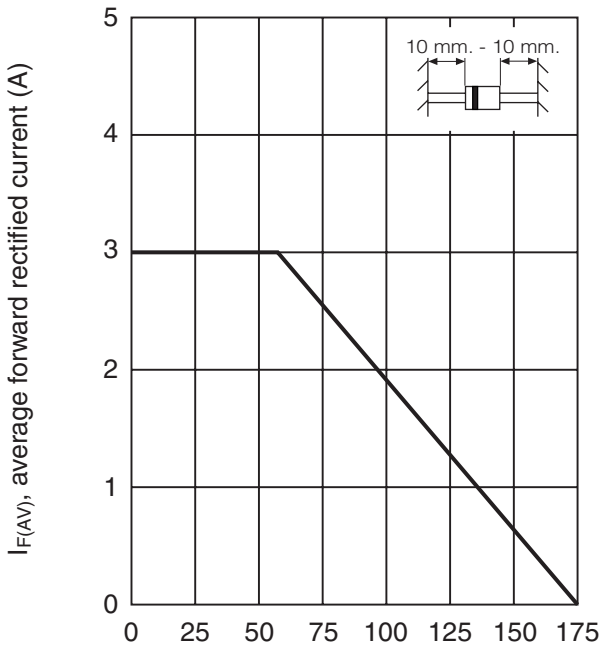
Ratings and Characteristics (Ta 25 ºC unless otherwise noted)

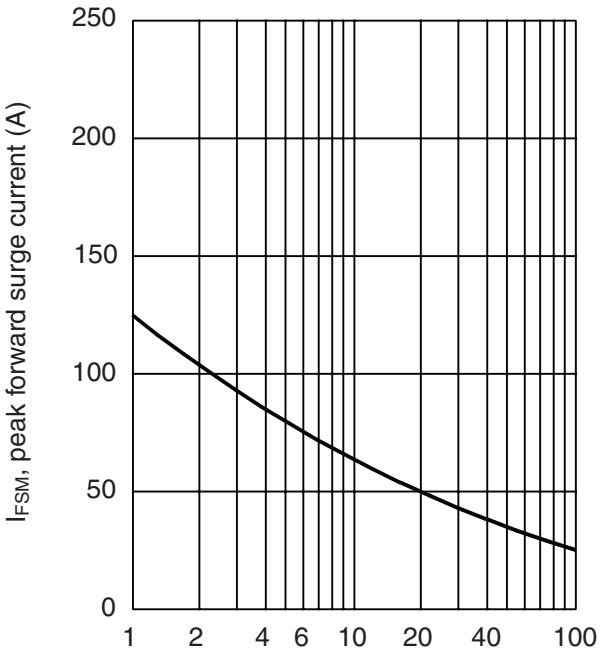
TYPICAL FORWARD CHARACTERISTIC



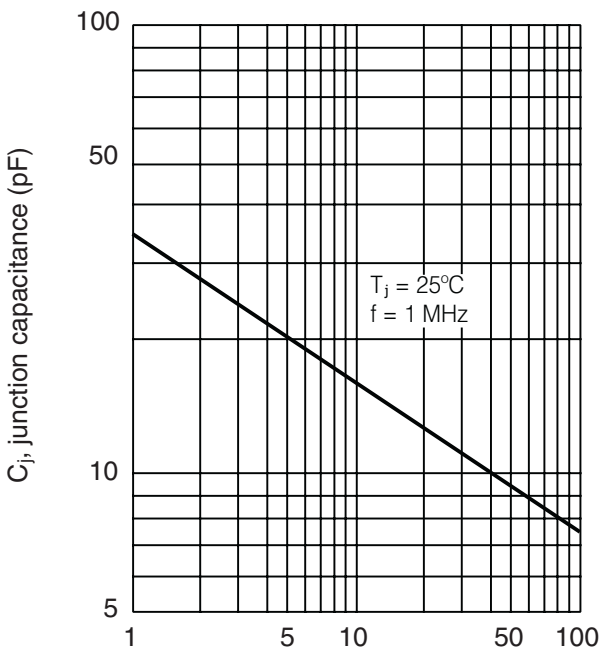
FORWARD CURRENT DERATING CURVE



MAXIMUM NON REPETITIVE
PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE



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Revision History

Date	Revision	Description of Changes
12-Sep-1998	0	Original Data Sheet
8-Nov-2016	1	Format update

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