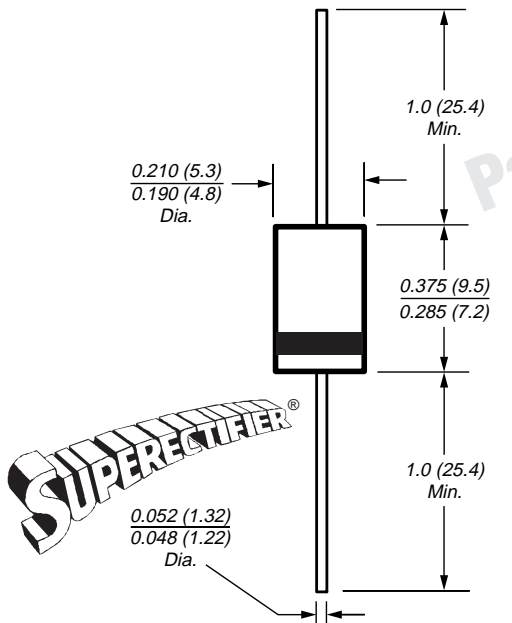


## Glass Passivated Junction Fast Switching Rectifier

Reverse Voltage 50 to 1000V  
Forward Current 2.5A



### Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- 2.5 Ampere operation at  $T_A=55^\circ\text{C}$  with no thermal runaway
- Typical  $I_R$  less than  $0.2\mu\text{A}$
- Capable of meeting environmental standards of MIL-S-19500
- High temperature soldering guaranteed:  $350^\circ\text{C}/10$  seconds,  $0.375"$  (9.5mm) lead length, 5 lbs. (2.3kg) tension

### Mechanical Data

**Case:** JEDEC DO-201AD, molded plastic over glass body

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.04 oz., 1.12 g

**Packaging codes/options:**

- 1/Bulk - 1.5K per container, 15K per box
- 4/1.4K per 13" reel, 5.6K per box
- 23/1K per Ammo. mag., 9K per box

## Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	RGP 25A	RGP 25B	RGP 25D	RGP 25G	RGP 25J	RGP 25K	RGP 25M	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{F(AV)}$	2.5							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100							A
Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{R(AV)}$	100							$\mu\text{A}$
Typical thermal resistance <sup>(1)</sup>	$R_{\theta JA}$	20							$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175							$^\circ\text{C}$

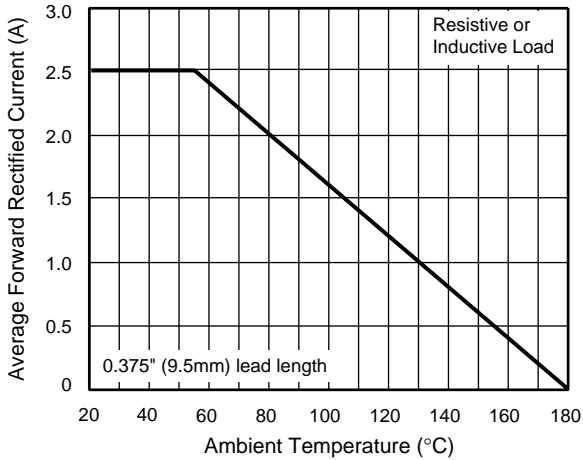
## Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage at 2.5A	$V_F$	1.3							V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$	5.0 200							$\mu\text{A}$
Maximum reverse recovery time $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$	$t_{rr}$	150			250		500		ns
Typical junction capacitance at 4.0V, 1MHz	$C_J$	60							pF

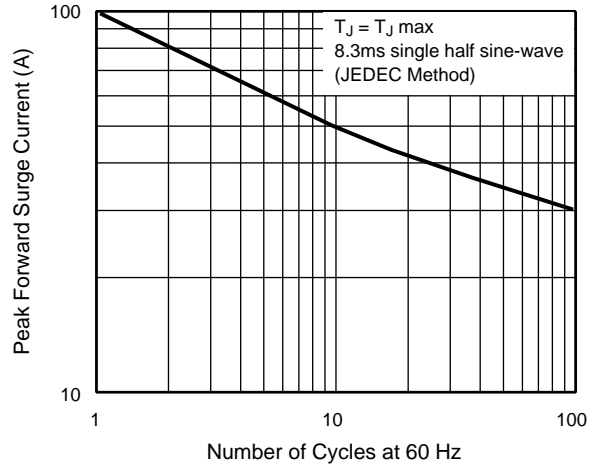
**Notes:** (1) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

## Ratings and Characteristic Curves (T<sub>A</sub> = 25°C unless otherwise noted)

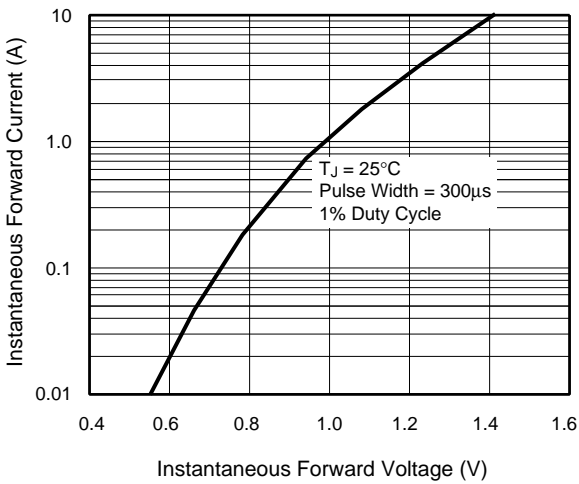
**Fig. 1 - Forward Derating Curve**



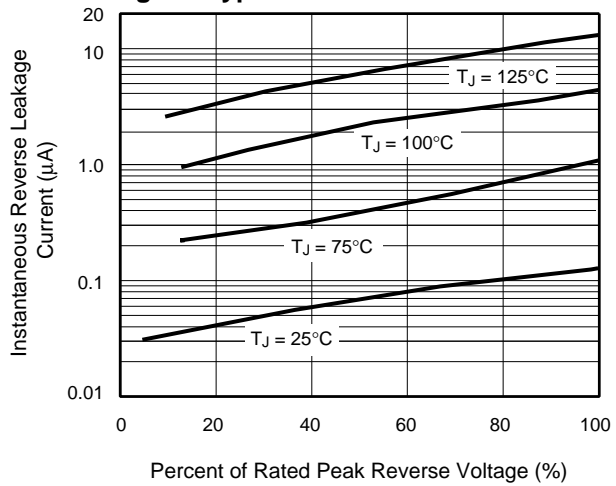
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 - Typical Instantaneous Forward Characteristics**



**Fig. 4 - Typical Reverse Characteristics**



**Fig. 5 - Typical Junction Capacitance**

