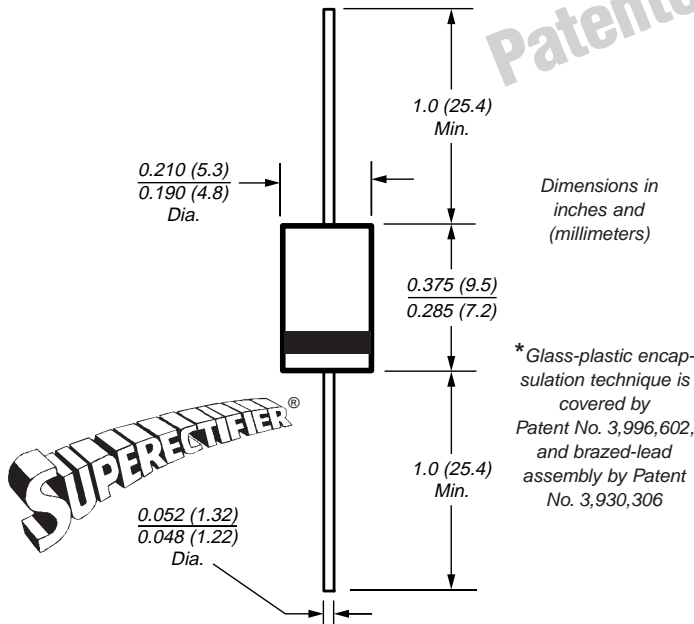


Glass Passivated Junction Fast Switching Rectifier

Reverse Voltage 50 to 1000V
Forward Current 3.0A

DO-201AD



Patented*

Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Cavity-free glass passivated junction
- Capable of meeting environmental standards of MIL-S-19500
- High temperature metallurgically bonded construction
- 3.0 Ampere operation at $T_A=55^\circ\text{C}$ with no thermal runaway
- Typical I_R less $< 0.2\mu\text{A}$
- Fast switching for high efficiency
- 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 30A	RGP 30B	RGP 30D	RGP 30G	RGP 30J	RGP 30K	RGP 30M	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 $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125							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							μA
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$	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 3.0A	V_F	1.3							V
Maximum DC reverse current at rated DC blocking voltage	I_R	5.0 100							μA
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_A = 25°C unless otherwise noted)

Fig. 1 — Forward Current Derating Curve

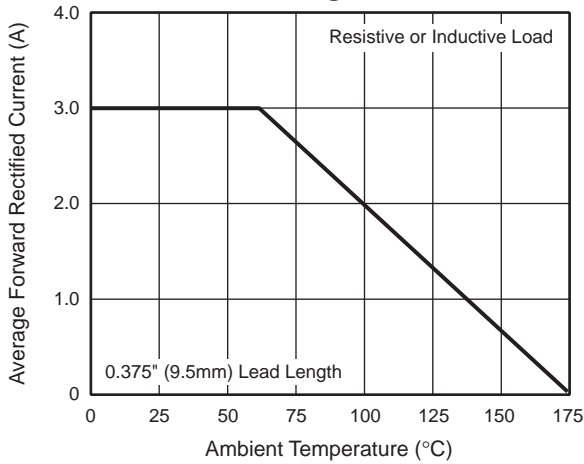


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current

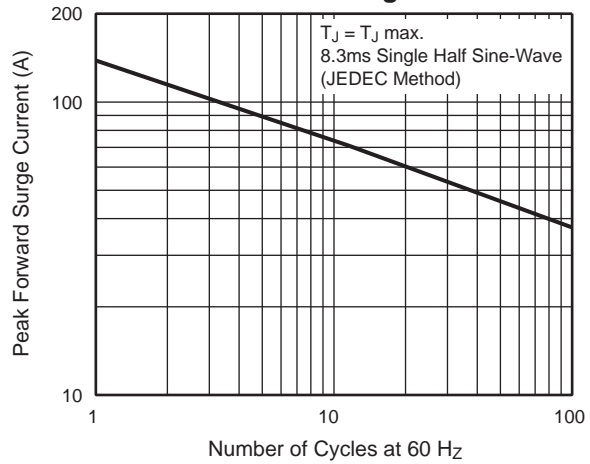


Fig. 3 — Typical Instantaneous Forward Characteristics

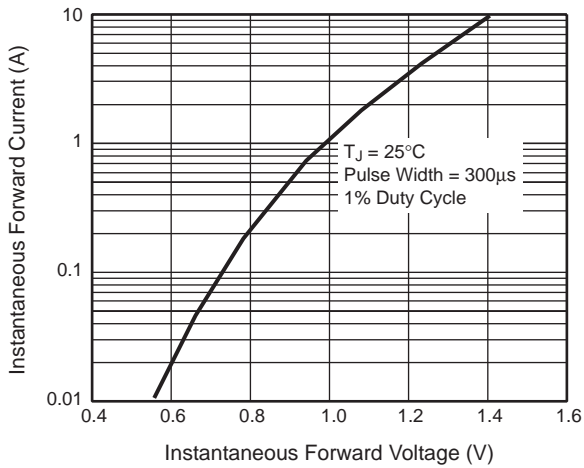


Fig. 4 — Typical Reverse Characteristics

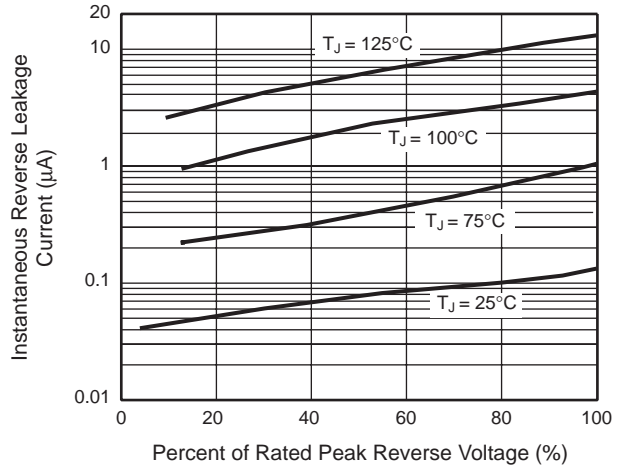


Fig. 5 — Typical Junction Capacitance

