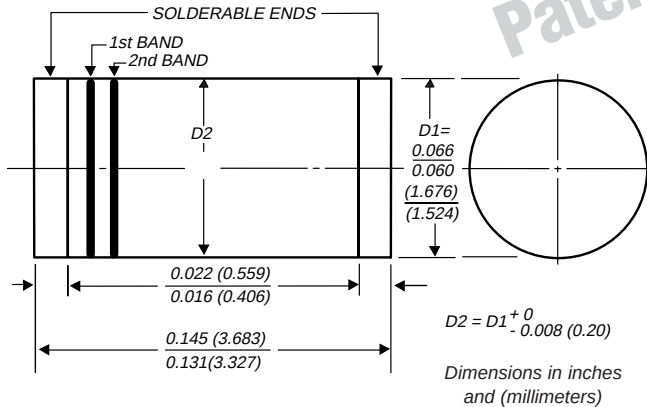




DO-213AA

Surface Mount Glass Passivated Junction
Fast Switching RectifiersReverse Voltage 50 to 800V
Forward Current 0.5A

*Glass-plastic encapsulation is covered by
Patent No. 3,996,602 and brazed-lead assembly to Patent No. 3,930,306



Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- For surface mount applications
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- Capable of meeting environmental standards of MIL-S-19500
- Fast switching for high efficiency
- High temperature soldering guaranteed: 450°C/5 seconds at terminals. Complete device submersible temperature of 260°C for 10 seconds in solder bath

Mechanical Data

Case: JEDEC DO-213AA, molded plastic over glass body
Terminals: Plated terminals, solderable per MIL-STD-750, Method 2026

Polarity: Two bands indicate cathode end – 1st band denotes device type and 2nd band denotes repetitive peak reverse voltage rating

Mounting Position: Any **Weight:** 0.0014 oz., 0.036 g
Packaging codes/options:

33/9K per 13" Reel (8mm tape)

48/2.5K per 7" Reel (8mm tape)

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

Fast switching device: 1st band is Red	Symbol	RGL34A	RGL34B	RGL34D	RGL34G	RGL34J	RGL34K	Unit
Polarity color bands (2nd Band)		Gray	Red	Orange	Yellow	Green	Blue	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	V
Max. average forward rectified current at $T_T = 55^\circ\text{C}$	$I_F(AV)$	0.5						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	10						A
Max. full load reverse current, full cycle average $T_A = 55^\circ\text{C}$	$I_R(AV)$	30						μA
Maximum thermal resistance ⁽¹⁾ ⁽²⁾	$R_{\theta JA}$ $R_{\theta JT}$	150 70						$^\circ\text{C/W}$
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.

	Symbol	RGL34A	RGL34B	RGL34D	RGL34G	RGL34J	RGL34K	Unit
Maximum instantaneous forward voltage at 0.5A	V _F	1.3						V
Maximum DC reverse current at rated DC blocking voltage	T _A = 25°C T _A = 125°C I _R	5.0 50						μA
Maximum reverse recovery time at I _F = 0.5A, I _R = 1.0A, I _{rr} = 0.25A	t _{rr}	150				250		ns
Typical junction capacitance at 4.0V, 1MHz	C _J	4.0						pF

Notes: (1) Thermal resistance from junction to ambient, 0.2 x 0.2" (5.0 x 5.0mm) copper pads to each terminal

(2) Thermal resistance from junction to terminal, 0.2 x 0.2" (5.0 x 5.0mm) copper pads to each terminal

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

**Fig. 1 – Forward Current
Derating Curve**

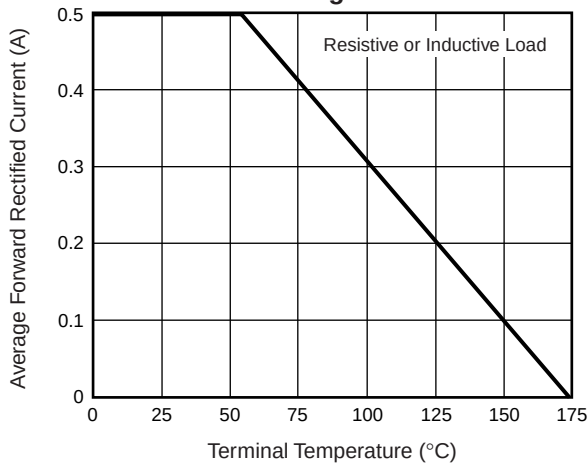


**Fig. 2 – Maximum Non-Repetitive Peak
Forward Surge Current**

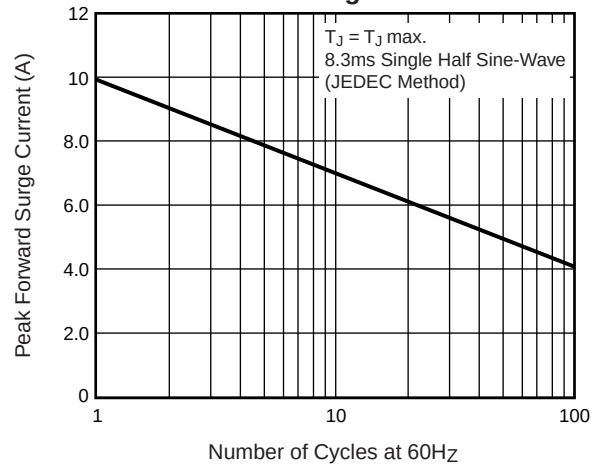


**Fig. 3 – Typical Instantaneous
Forward Characteristics**

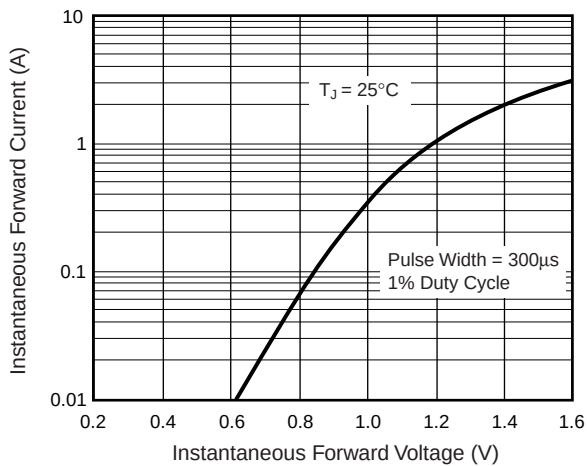


Fig. 4 – Typical Reverse Characteristics

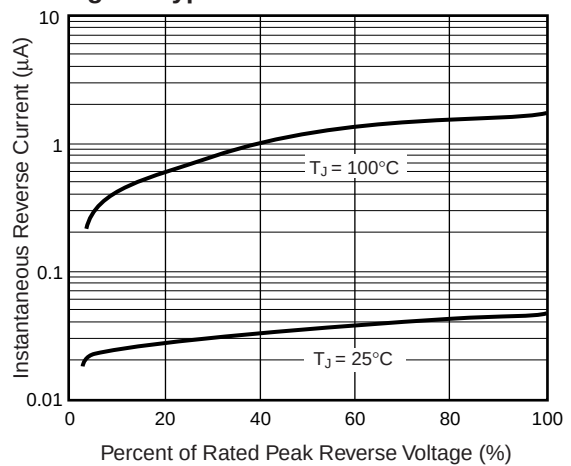


Fig. 5 – Typical Junction Capacitance

