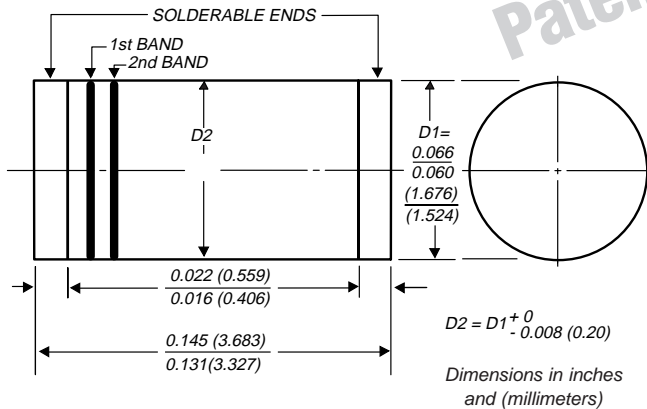




DO-213AA

## Surface Mount Glass Passivated Junction Fast Switching Rectifiers

Reverse Voltage 50 to 800V  
Forward Current 0.5A

1st band denotes type and polarity  
2nd band denotes voltage type

\*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						$\mu\text{A}$
Maximum thermal resistance <sup>(1)</sup> <sup>(2)</sup>	$R_{\theta JA}$ $R_{\theta JT}$	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.

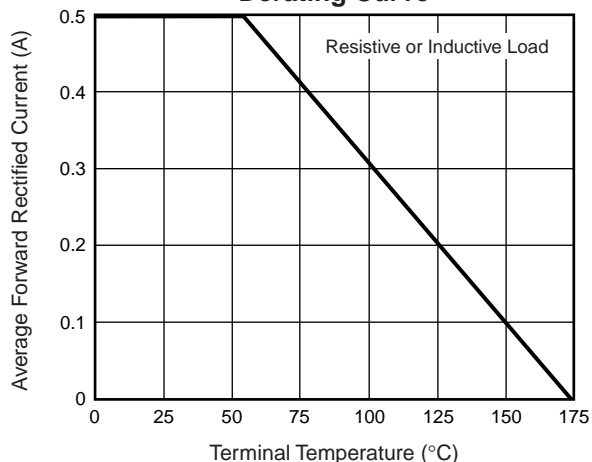
	Symbol	RGL34A	RGL34B	RGL34D	RGL34G	RGL34J	RGL34K	Unit
Maximum instantaneous forward voltage at 0.5A	V <sub>F</sub>	1.3						V
Maximum DC reverse current at rated DC blocking voltage	T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C I <sub>R</sub>	5.0 50						μA
Maximum reverse recovery time at I <sub>F</sub> = 0.5A, I <sub>R</sub> = 1.0A, I <sub>rr</sub> = 0.25A	t <sub>rr</sub>	150				250		ns
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>	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

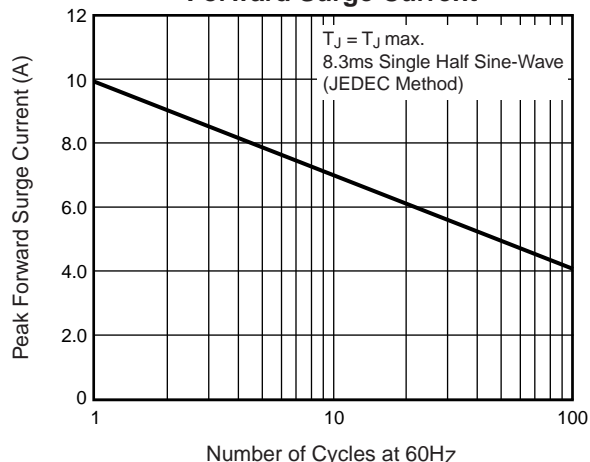
(2) Thermal resistance from junction to terminal, 0.2 x 0.2" (5.0 x 5.0mm) copper pads to each terminal

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

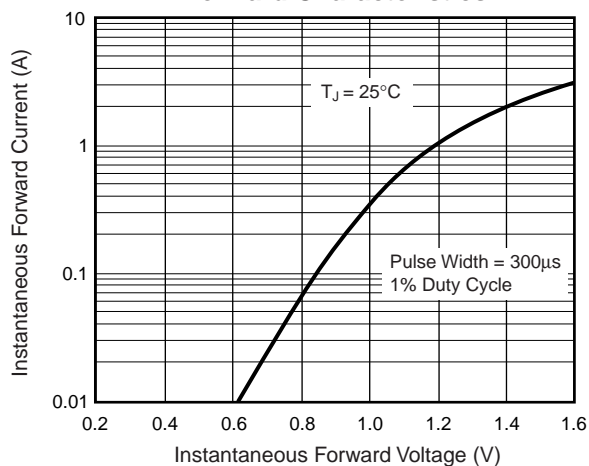
**Fig. 1 – Forward Current  
Derating Curve**



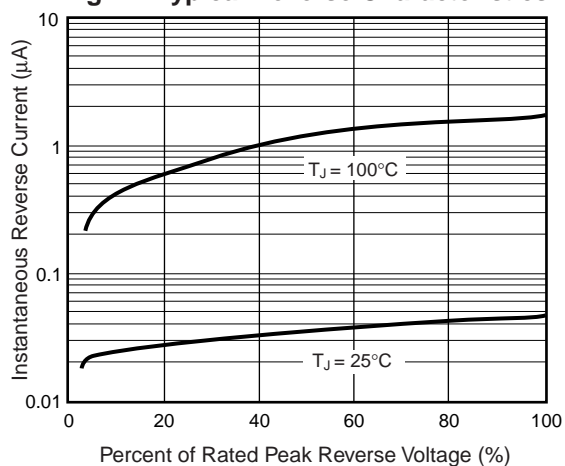
**Fig. 2 – Maximum Non-Repetitive Peak  
Forward Surge Current**



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



**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**

