

# BYM06-50 THRU BYM06-600 RGL34A THRU RGL34J

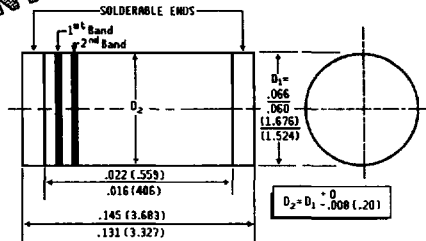
**SURFACE MOUNT GLASS PASSIVATED FAST SWITCHING JUNCTION RECTIFIER**

**Voltage - 50 to 600 Volts Current - 0.5 Amperes**

## FEATURES

**PATENTED\***

**DO-213AA**



\*Glass-plastic encapsulation technique is covered by Patent No. 3,996,602 of 1976; brazed-lead assembly to Patent No. 3,930,306 of 1976

- ◆ For surface mounted applications
- ◆ High temperature metallurgically bonded
- ◆ Glass passivated junction
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ 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:** Molded plastic over glass

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

**Polarity:** Two bands indicate cathode

1st band denotes device type 2nd band denotes voltage type

**Mounting Position:** Any **Handling Precautions:** None

**Weight:** 0.036 gram, 0.0014 ounce

**SUPERRECTIFIER®**

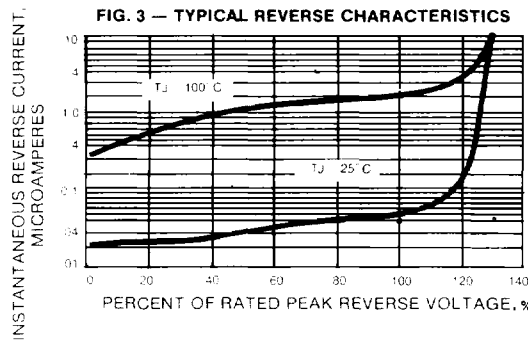
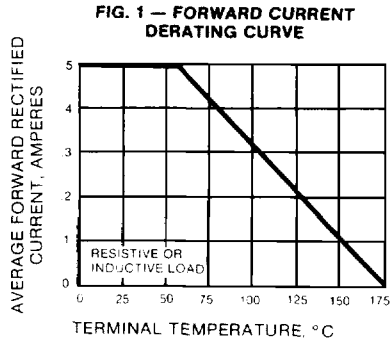
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

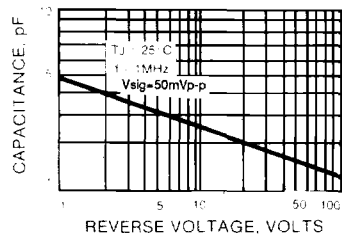
	SYMBOLS	BYM06					UNITS
		-50	-100	-200	-400	-600	
Fast switching device: 1 <sup>st</sup> band is Red		RGL34A	RGL34B	RGL34D	RGL34G	RGL34J	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	Volts
Maximum Average Forward Rectified Current at $T_T=55^\circ\text{C}$	$I_{(AV)}$	0.5					Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	10.0					Amps
Maximum Instantaneous Forward Voltage at 0.5A	$V_F$	1.3					Volts
Maximum DC Reverse Current $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=125^\circ\text{C}$	$I_R$	5.0 50.0					$\mu\text{A}$
Maximum Full Load Reverse Current, Full Cycle Average, at $T_A=55^\circ\text{C}$	$I_{R(AV)}$	30.0					$\mu\text{A}$
Maximum Reverse Recovery Time (NOTE 1) $T_A=25^\circ\text{C}$	$T_{RR}$	150			250		nS
Typical Junction Capacitance (NOTE 2)	$C_J$	4.0					pF
Maximum Thermal Resistance (NOTE 3) (NOTE 4)	$R_{\theta J L}$ $R_{\theta J A}$	70 150.0					$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-65 to +175					$^\circ\text{C}$
Polarity Color Bands (2 <sup>nd</sup> Band)		Gray	Red	Orange	Yellow	Green	

- NOTES: 1. Reverse Recovery Test Conditions  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=.25\text{A}$ .  
2. Measured at 1 MHz and applied reverse voltage of 4.0 Volts.  
3. Thermal resistance from junction to terminal, 5mm<sup>2</sup> copper pads to each terminal.  
4. Thermal resistance from junction to ambient, 5mm<sup>2</sup> copper pads to each terminal.

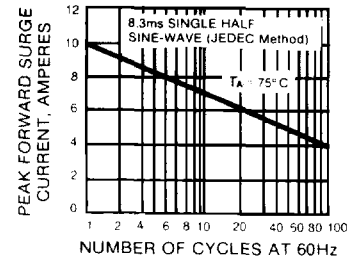
**RATINGS AND CHARACTERISTIC CURVES BYM06-50 THRU BYM06-600  
RGL34A THRU RGL34J**



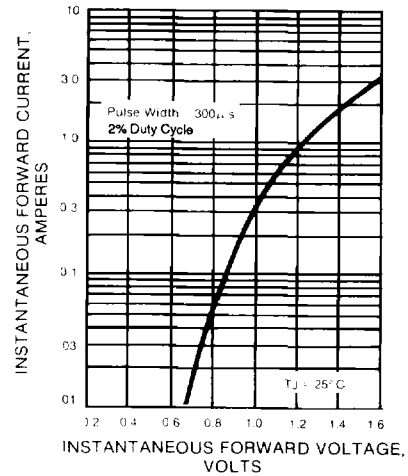
**FIG. 5 — TYPICAL JUNCTION CAPACITANCE**



**FIG. 2 — MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG. 4 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 6 — REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**

