

# Silicon Diode

## **BYM11-1000**

Fast Switching Rectifier

1000V / 1A

# DATASHEET

from

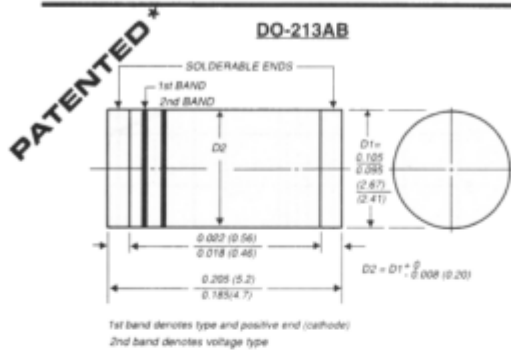
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OEM – General Semiconductor

Source: General Semiconductor Databook 1998

# BYM11-50 THRU BYM11-1000 RGL41A THRU RGL41M

**SURFACE MOUNT GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER**  
*Reverse Voltage - 50 to 1000 Volts      Forward Current - 1.0 Ampere*



1st band denotes type and positive end (cathode)  
 2nd band denotes voltage type  
 Dimensions in inches and (millimeters)  
 \* 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 Laboratory Flammability Classification 94V-0
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ For surface mount applications
- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free junction
- ◆ 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-213AB 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:** 0.0046 ounce, 0.116 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	BYM11 -50	BYM11 -100	BYM11 -200	BYM11 -400	BYM11 -600	BYM11 -800	BYM11 -1000	UNITS
Fast switching time device: 1st band is Red		RGL 41A	RGL 41B	RGL 41D	RGL 41G	RGL 41J	RGL 41K	RGL 41M	
Polarity color bands (2nd Band)		Gray	Red	Orange	Yellow	Green	Blue	Violet	
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at T <sub>T</sub> =55°C	I(AV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	VF	1.3							Volts
Maximum DC reverse current at rated DC blocking voltage	IR	5.0 50.0							μA
Maximum full load reverse current, full cycle average at T <sub>A</sub> =55°C	IR(AV)	50.0							μA
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>	150			250		500		ns
Typical junction capacitance (NOTE 2)	C <sub>J</sub>	15.0							pF
Maximum thermal resistance (NOTE 3)	R <sub>θJA</sub>	75.0							°C/W
(NOTE 4)	R <sub>θJT</sub>	30.0							
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175							°C

**NOTES:**

- (1) Reverse recovery test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>m</sub>=0.25A
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal
- (4) Thermal resistance from junction to terminal, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal

**RATINGS AND CHARACTERISTIC CURVES BYM11-50 THRU BYM11-1000 / RGL41A THRU RGL41M**

