

# Silicon Diode

## **RGL41A**

50V / 1A

# DATASHEET

from

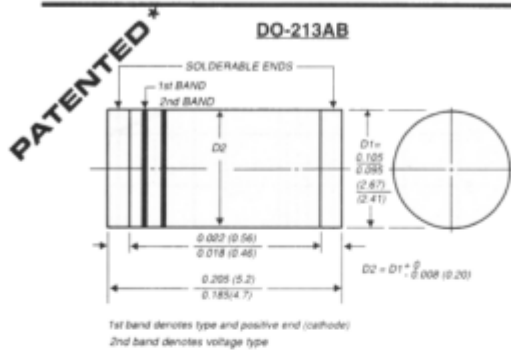
[www.web-bcs.com](http://www.web-bcs.com)

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<br>-50 | BYM11<br>-100 | BYM11<br>-200 | BYM11<br>-400 | BYM11<br>-600 | BYM11<br>-800 | BYM11<br>-1000 | UNITS |
|--|-----------------------------------|--------------|---------------|---------------|---------------|---------------|---------------|----------------|-------|
| Fast switching time device: 1st band is Red  |                                   | RGL<br>41A   | RGL<br>41B    | RGL<br>41D    | RGL<br>41G    | RGL<br>41J    | RGL<br>41K    | RGL<br>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  | V <sub>F</sub>                    | 1.3          |               |               |               |               |               |                | Volts |
| Maximum DC reverse current at rated DC blocking voltage  | I <sub>R</sub>                    | 5.0<br>50.0  |               |               |               |               |               |                | μA    |
| Maximum full load reverse current, full cycle average at T <sub>A</sub> =55°C                    | I <sub>R(AV)</sub>                | 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**

