

Silicon Diode

RGL41B

100V / 1A

DATASHEET

from

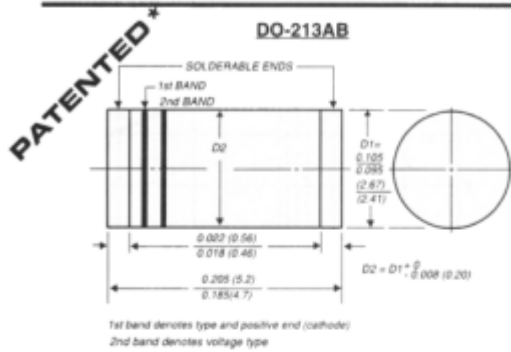
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OEM – General Semiconductor

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



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 _T =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 _A =55°C | IR(AV) | 50.0 | | | | | | | μA |
| Maximum reverse recovery time (NOTE 1) | t _{rr} | 150 | | | | 250 | 500 | | ns |
| Typical junction capacitance (NOTE 2) | C _J | 15.0 | | | | | | | pF |
| Maximum thermal resistance (NOTE 3) | R _{θJA} | 75.0 | | | | | | | °C/W |
| (NOTE 4) | R _{θJT} | 30.0 | | | | | | | |
| Operating junction and storage temperature range | T _J , T _{STG} | -65 to +175 | | | | | | | °C |

NOTES:

- (1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_m=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

