

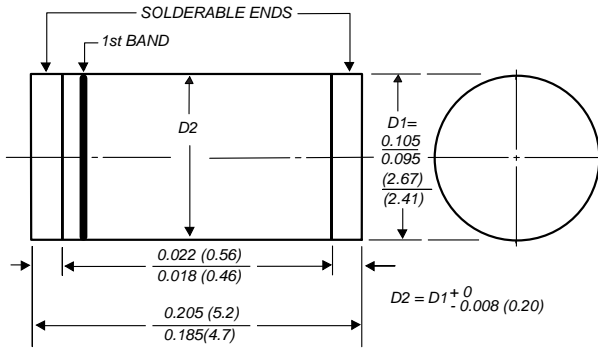


BYM13-20 thru BYM13-60 SGL41-20 thru SGL41-60 Surface Mount Schottky Rectifier

Reverse Voltage 20 to 60V

Forward Current 1.0A

DO-213AB



1st band denotes type and positive end (cathode)

Dimensions in inches and (millimeters)

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

Mechanical Data

Case: JEDEC DO-213AB molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Two bands indicate cathode end 1st band denotes device type 2nd band denotes voltage type

Mounting Position: Any

Weight: 0.0041 ounce, 0.116 gram

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

| Parameter | Symbol | BYM13-20 | BYM13-30 | BYM13-40 | BYM13-50 | BYM13-60 | Unit |
|--|--------------------------------------|--|-----------------|-----------------|-----------------|-----------------|------|
| Denotes Schottky devices: 1st band is orange | | SGL41-20 | SGL41-30 | SGL41-40 | SGL41-50 | SGL41-60 | |
| Polarity color bands (2nd band) voltage type | | Gray | Red | Orange | Yellow | Green | |
| Maximum repetitive peak reverse voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | V |
| Maximum RMS voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | V |
| Maximum DC blocking voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | V |
| Maximum average forward rectified current (SEE FIG. 1) | I _{F(AV)} | 1.0 | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 30 | | | | | A |
| Maximum thermal resistance | R _{θJA} R _{θJT} | 75 ⁽²⁾ 30 ⁽³⁾ | | | | | °C/W |
| Operating junction temperature range | T _J | -55 to +125 | | | -55 to +150 | | °C |
| Storage temperature range | T _{STG} | -55 to +150 | | | | | °C |

Electrical Characteristics (T_A = 25°C unless otherwise noted)

| Parameter | Symbol | SGL41-20 | SGL41-30 | SGL41-40 | SGL41-50 | SGL41-60 | Unit |
|--|----------------|----------|----------|----------|----------|----------|------|
| Maximum instantaneous forward voltage at 1.0A ⁽¹⁾ | V _F | 0.50 | | | 0.70 | | V |
| Maximum reverse current at rated DC blocking voltage ⁽¹⁾ | I _R | 0.5 | | | | | mA |
| | | 10 | | | 5.0 | | |
| Typical junction capacitance at 4.0V, 1.0MHz | C _J | 110 | | | 80 | | pF |

NOTES: (1) Pulse test: 300µs pulse width, 1% duty cycle
(2) Thermal resistance junction to terminal, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal
(3) Thermal resistance junction to ambient, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal

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Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

