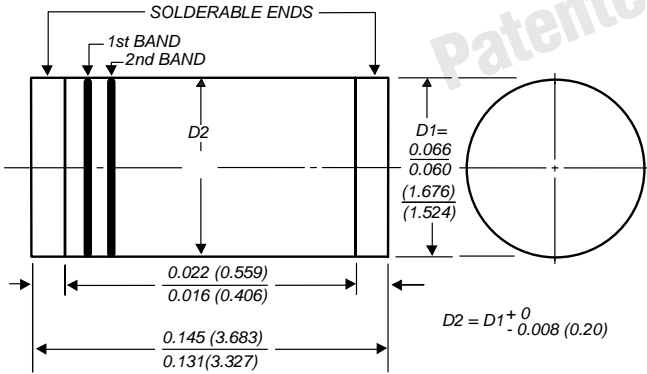




Surface Mount Glass Passivated
Ultrafast Rectifier

Reverse Voltage 50 to 400V
Forward Current 0.5A

DO-213AA



1st band denotes type and polarity
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 Laboratories Flammability Classification 94V-0
- Capable of meeting environmental standards of MIL-S-19500
- High temperature metallurgically bonded construction
- Cavity-free glass passivated 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-213AA, 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:** 0.0014 oz., 0.036 g

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter | Symbol | BYM07-50 | BYM07-100 | BYM07-150 | BYM07-200 | BYM07-300 | BYM07-400 | Unit |
|--|--------------------------------------|-------------|-----------|-----------|-----------|-----------|-----------|------|
| Fast efficient device: 1st band is Green | | EGL34A | EGL34B | EGL34C | EGL34D | EGL34F | EGL34G | |
| Polarity color bands (2nd Band) | | Gray | Red | Pink | Orange | Brown | Yellow | |
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | V |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | V |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 150 | 200 | 300 | 400 | V |
| Maximum average forward rectified current at T _T = 75°C | I _{F(AV)} | 0.5 | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 10 | | | | | | A |
| Maximum full load reverse current, full cycle average at T _A = 55°C | I _{R(AV)} | 50 | | | | | | µA |
| Maximum thermal resistance (Note 1, 2) | R _{θJA} R _{θJT} | 150 70 | | | | | | °C/W |
| Operating junction and storage temperature range | T _J , T _{STG} | -65 to +175 | | | | | | °C |

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter | Symbol | BYM07-50 | BYM07-100 | BYM07-150 | BYM07-200 | BYM07-300 | BYM07-400 | Unit |
|---|-----------------|-------------|-----------|-----------|-----------|-----------|-----------|------|
| | | EGL34A | EGL34B | EGL34C | EGL34D | EGL34F | EGL34G | |
| Maximum DC reverse current at rated DC blocking voltage T _A = 25°C T _A = 125°C | I _R | 5.0 50 | | | | | | µA |
| Maximum instantaneous forward voltage at 0.5A | V _F | 1.25 1.35 | | | | | | V |
| Max. reverse recovery time at I _F = 0.5A, I _R = 1.0A, I _r = 0.25A | t _{rr} | 50 | | | | | | ns |
| Typical junction capacitance at 4.0V, 1MHz | C _J | 7.0 | | | | | | pF |

Notes: (1) Thermal resistance from junction to ambient, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal
(2) Thermal resistance from junction to terminal, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal

Vishay Semiconductors
formerly General Semiconductor

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

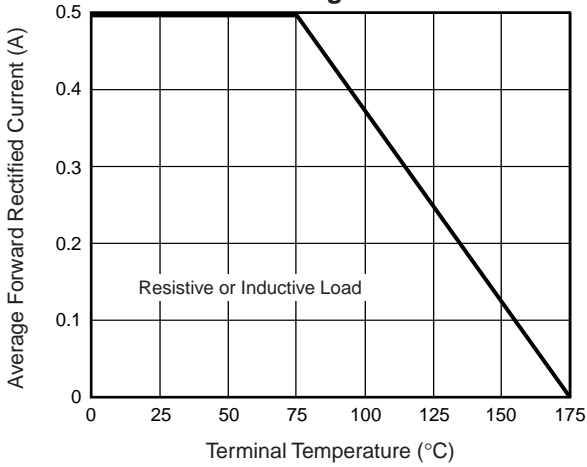


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

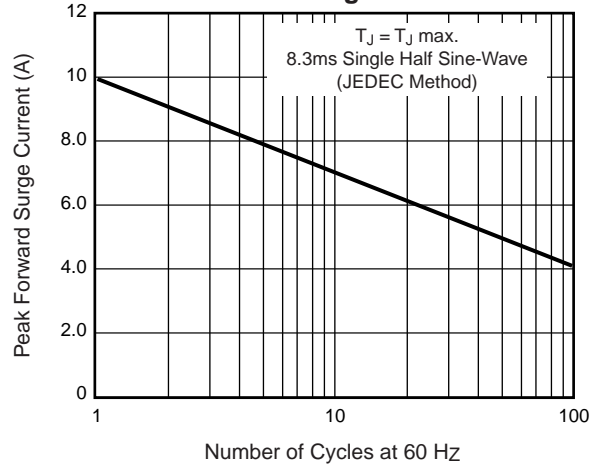


Fig. 3 – Typical Instantaneous Forward Characteristics

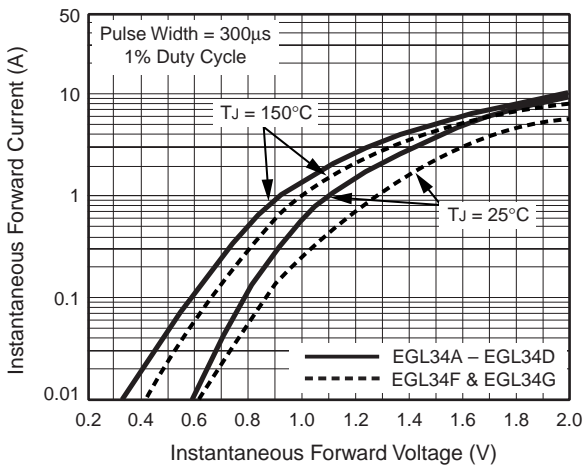


Fig. 4 – Typical Reverse Characteristics

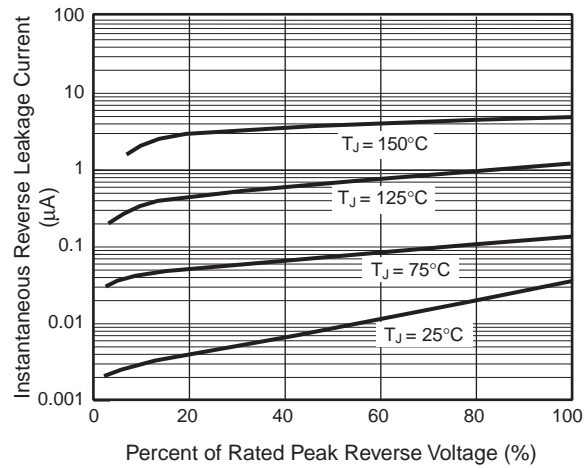


Fig. 5 – Typical Junction Capacitance

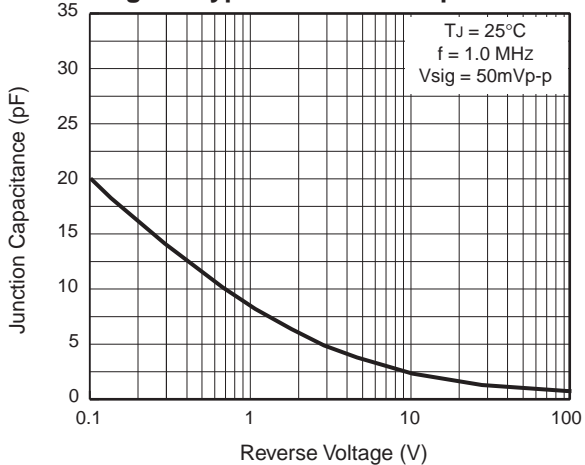


Fig. 6 – Typical Transient Thermal Impedance

