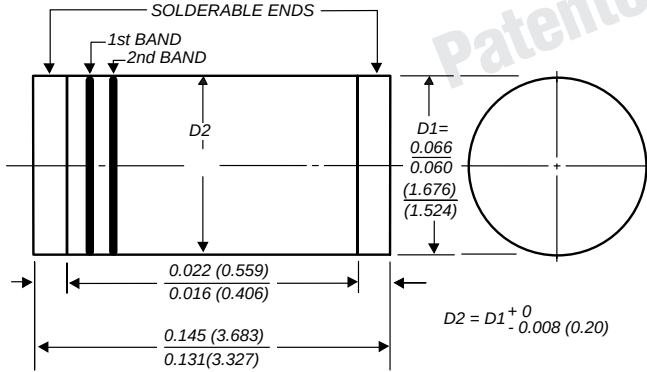


Surface Mount Glass Passivated
Ultrafast RectifierReverse Voltage 50 to 400V
Forward Current 0.5A

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 gMaximum 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 $T_T = 75^\circ\text{C}$	$I_{F(AV)}$	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 $T_A = 55^\circ\text{C}$	$I_{R(AV)}$	50						μA
Maximum thermal resistance (Note 1, 2)	$R_{\theta JA}$ $R_{\theta JT}$	150 70						$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175						$^\circ\text{C}$

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 $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	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 $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$	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

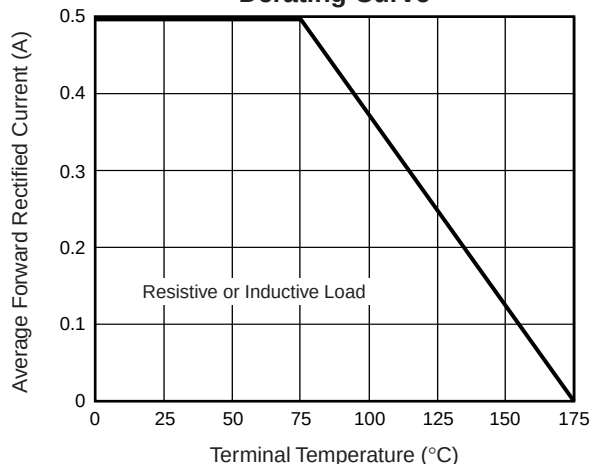


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

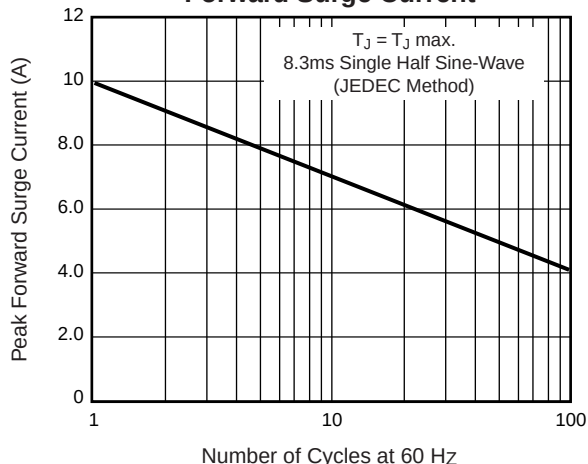


Fig. 3 – Typical Instantaneous Forward Characteristics

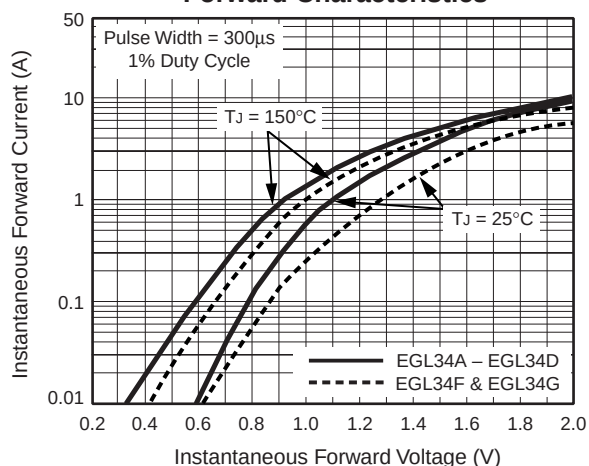


Fig. 4 – Typical Reverse Characteristics

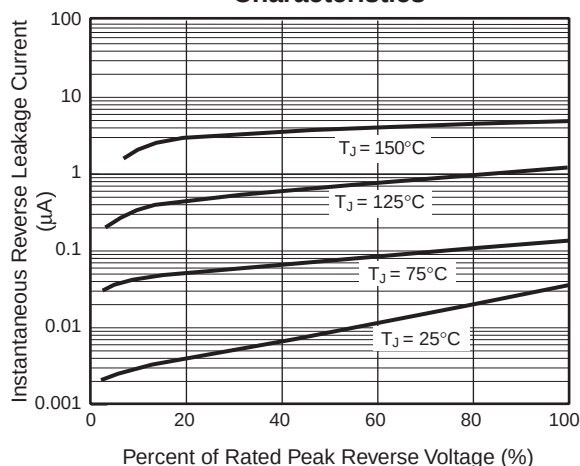


Fig. 5 – Typical Junction Capacitance

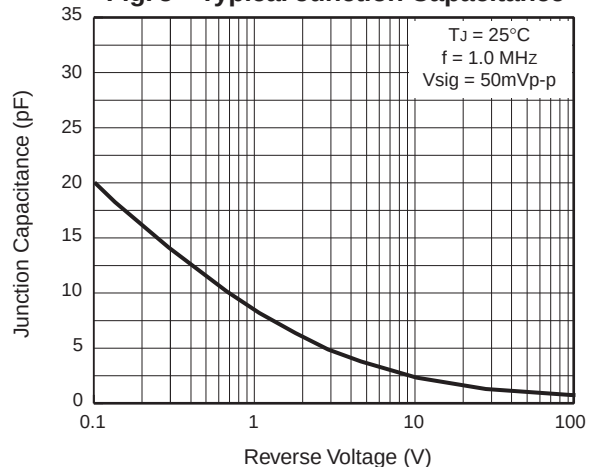


Fig. 6 – Typical Transient Thermal Impedance

