

Surface Mount Glass Passivated Junction UltraFast Recovery Rectifier

FEATURES

- Glass passivated standard rectifiers
- Ideal for automated placement
- Low forward voltage drop
- Low leakage current
- Meets environmental standard MIL-S-19500
- Meets MSL level 1, per J-STD-020
- Solder dip 275 °C, 10 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



DO-213AA (GL34)

TYPICAL APPLICATIONS

For use in general purpose rectification of lighting, power supplies, inverters, converters and freewheeling diodes for consumer, automotive and telecommunication.

MECHANICAL DATA

- **Case:** DO-213AA, molded epoxy over glass body Epoxy meets UL 94V-0 flammability rating
- **Terminals:** Matte tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity :** Two bands indicate cathode end - 1st band denotes device type and cathode, white ring denotes cathode and general standard rectifier family, and 2nd band denotes repetitive peak reverse voltage rating

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25° C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (TA = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	EGL1A	EGL1B	EGL1D	EGL1G	EGL1J	EGL1K	EGL1M	UNIT
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at Tt = 75 °C	IF(AV)	1							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	25							A
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150							°C



EGL1A ~ EGL1M

ELECTRICAL CHARACTERISTICS (Ta = 25 °C unless otherwise noted)											
PARAMETER	TEST CONDITIONS	SYMBOL	EGL1A	EGL1B	EGL1D	EGL1G	EGL1J	EGL1K	EGL1M	UNIT	
Maximum instantaneous forward voltage	1 A	V _F	1.3				1.7				V
Maximum DC reverse current at rated DC blocking voltage	Ta=25 °C Ta=125 °C	I _R	5				50				μA
Typical reverse recovery time	I _F = 0.5 A, I _R = 1.0 A, I _{rr} = 0.25 A	t _{rr}	50				75				ns
Typical junction capacitance	4.0 V, 1 MHz	C _J	14								pF

THERMAL CHARACTERISTICS (Ta = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	EGL1A	EGL1B	EGL1D	EGL1G	EGL1J	EGL1K	EGL1M	UNIT
Maximum thermal resistance ^{(1)/(2)}	R _{θJA}	150							°C/W
	R _{θJT}	70							

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

ORDERING INFORMATION (Example)			
PREFERRED P/N	UNIT WEIGHT (g)	BASE QUANTITY	DELIVERY MODE
EGL1M-HM32	0.033	2500	7" diameter plastic tape and reel
EGL1M-HK32	0.033	9000	13" diameter plastic tape and reel

RATINGS AND CHARACTERISTICS CURVES (Ta = 25 °C unless otherwise noted)

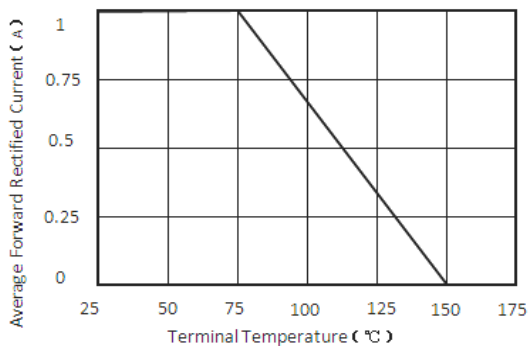


Figure 1. Forward Current Derating Curve

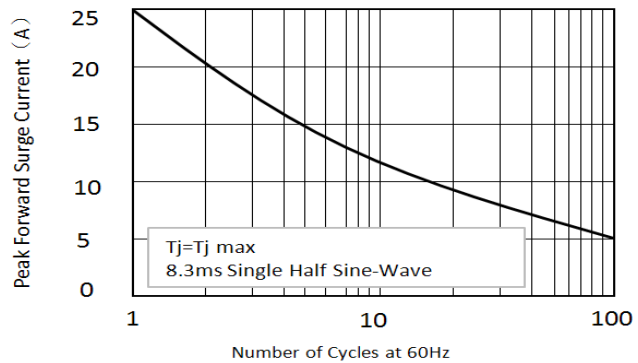


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

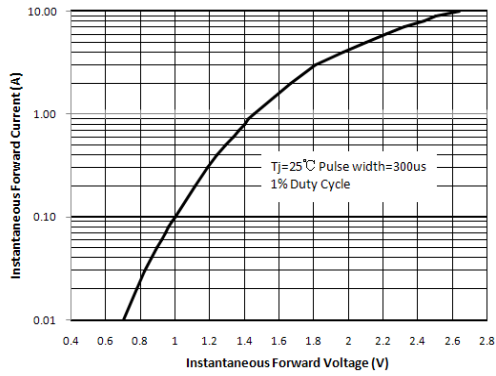


Figure 3 Typical Instantaneous Forward Characteristics

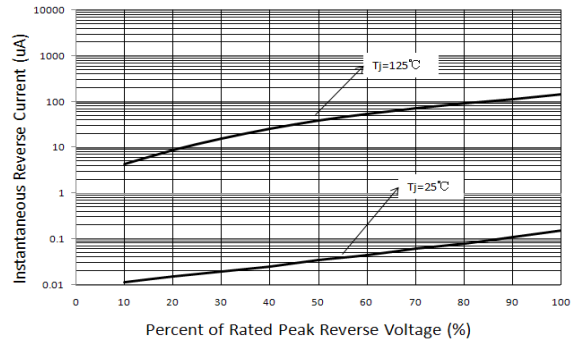


Figure 4 Typical Reverse Characteristics

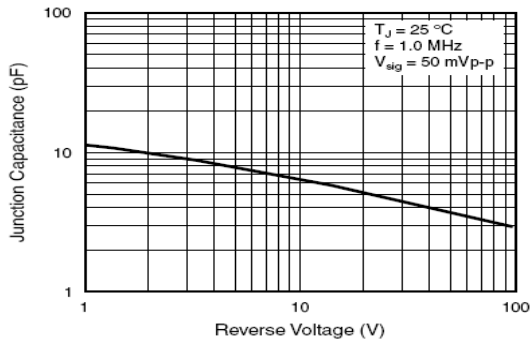


Figure 5. Typical Junction Capacitance

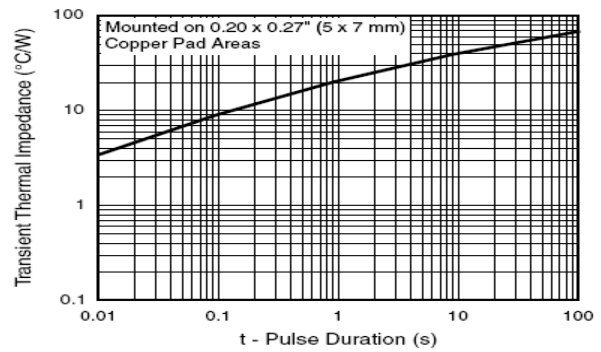
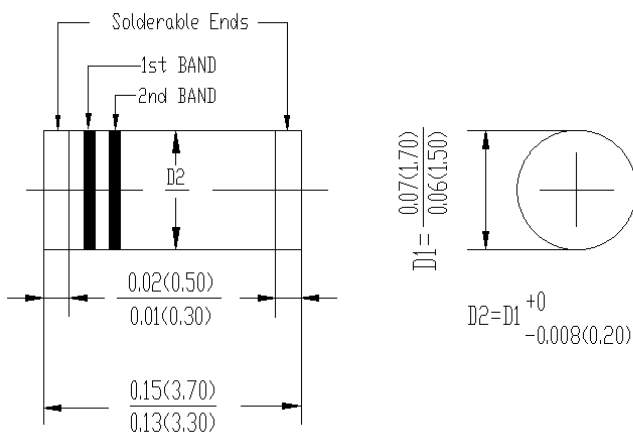


Figure 6. Typical Transient Thermal Impedance

Package Dimensions in inches and (millimeters)

DO-213AA (GL34)



1st band denotes type and polarity 2nd band denotes voltage type

Mounting Pad Layout

