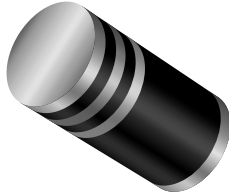


Surface Mount Glass Passivated Power Voltage-Regulating Diodes



DO-213AB (GL41)

FEATURES

- Plastic MELF package
- Ideal for automated placement
- Glass passivated chip junction
- Low Zener impedance
- Low regulation factor
- Meets MSL level 1, per J-STD-020C, LF maximum peak of 250 °C
- Solder dip 260 °C, 40 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



RoHS
COMPLIANT

TYPICAL APPLICATIONS

For general purpose regulation and protection applications.

MECHANICAL DATA

Case: DO-213AB (GL41)

Molding compound meets UL 94 V-0 flammability rating

Base P/N-E3 - RoHS compliant, commercial grade

Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102

E3 suffix meets JESD 201 class 1A whisker test

Polarity: Red band denotes Zener diode and positive (cathode)

PRIMARY CHARACTERISTICS	
V_Z	100 V to 200 V
P_D	1.0 W
I_R	1.0 μ A
T_J max.	150 °C

MAXIMUM RATINGS ($T_A = 25$ °C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150	°C

ELECTRICAL CHARACTERISTICS ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)									
TYPE	NOMINAL ZENER VOLTAGE AT $I_{ZT}^{(1)}$ V_Z (V)	TEST CURRENT I_{ZT} (mA)	MAXIMUM ZENER DYNAMIC IMPEDANCE			MAXIMUM DC REVERSE LEAKAGE CURRENT AT V_R		MAXIMUM SURGE CURRENT I_{RM} (mAdc) ⁽²⁾	MAX. INSTANTANEOUS FORWARD VOLTAGE AT 200 mA V_F (V)
			Z_{ZT} AT I_{ZT}	Z_{ZK} AT I_{ZK}		I_R	V_R		
				(Ω)	(Ω)				
ZGL41-100	100	3.7	250	3100	0.25	1.0	76.0	10.0	1.5
ZGL41-110	110	3.4	300	4000	0.25	1.0	83.6	9.1	1.5
ZGL41-120	120	3.1	380	4500	0.25	1.0	91.2	8.3	1.5
ZGL41-130	130	2.9	450	5000	0.25	1.0	98.8	7.7	1.5
ZGL41-140	140	2.7	525	5500	0.25	1.0	106.4	7.1	1.5
ZGL41-150	150	2.5	600	6000	0.25	1.0	114.0	6.7	1.5
ZGL41-160	160	2.3	700	6500	0.25	1.0	121.6	6.3	1.5
ZGL41-170	170	2.2	800	6750	0.25	1.0	129.2	5.9	1.5
ZGL41-180	180	2.1	900	7000	0.25	1.0	136.9	5.6	1.5
ZGL41-190	190	2.0	1050	7500	0.25	1.0	144.4	5.3	1.5
ZGL41-200	200	1.9	1200	8000	0.25	1.0	152.0	5.0	1.5

Notes:

- (1) Standard voltage tolerance is $\pm 10\%$, Suffix A = $\pm 5\%$
- (2) Surge current is a non-repetitive, 8.3 ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC Method
- (3) Maximum steady state power dissipation is 1.0 W at $T_L = 75\text{ }^\circ\text{C}$

ORDERING INFORMATION (Example)				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
ZGL41-100-E3/96	0.134	96	1500	7" diameter plastic tape and reel
ZGL41-100-E3/97	0.134	97	5000	13" diameter plastic tape and reel

RATINGS AND CHARACTERISTICS CURVES

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

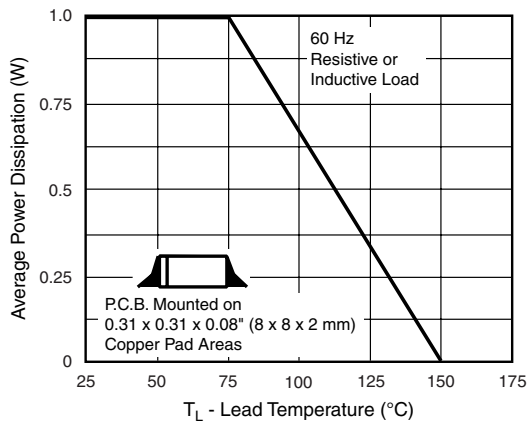


Figure 1. Maximum Continuous Power Dissipation

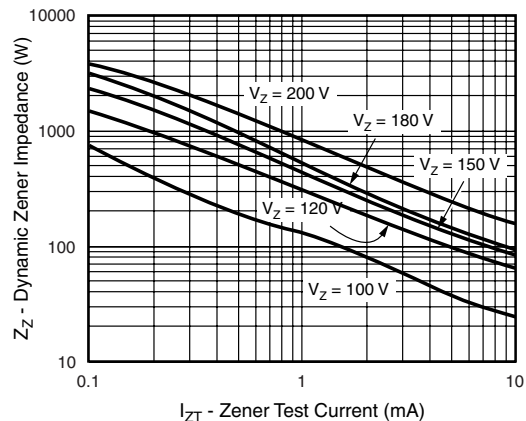


Figure 2. Typical Zener Impedance

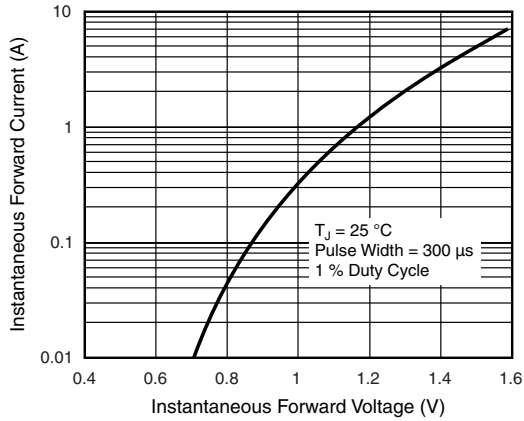


Figure 3. Typical Instantaneous Forward Characteristics

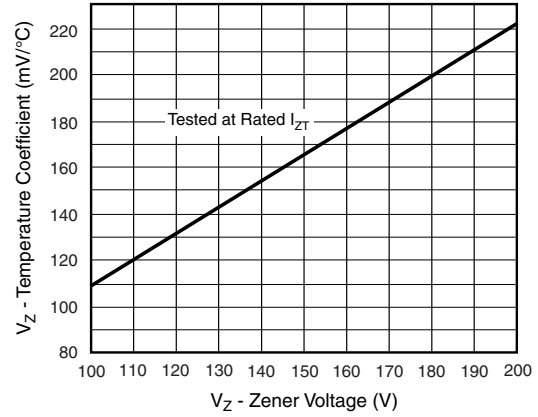


Figure 5. Steady State Power Derating Curve

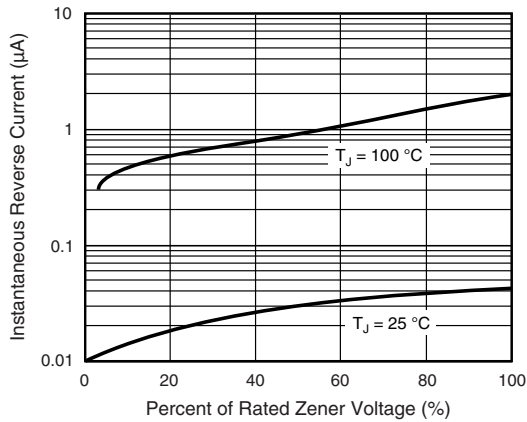


Figure 4. Typical Reverse Characteristics

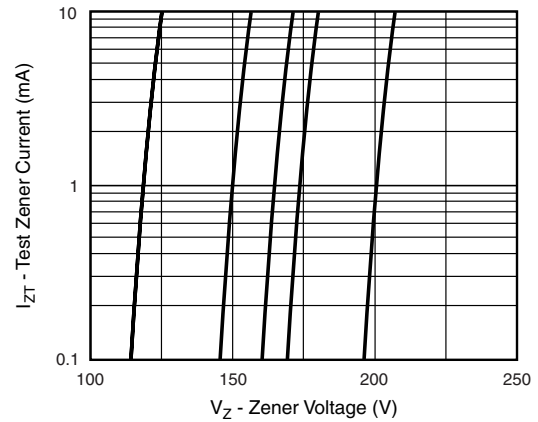
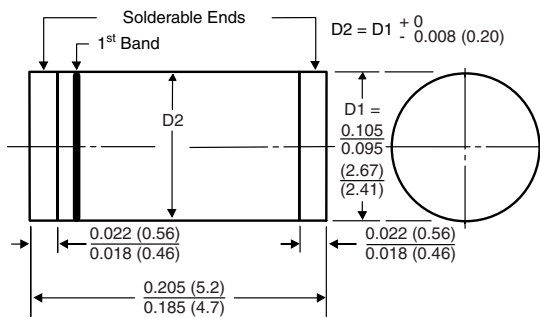


Figure 6. Typical Zener Voltage

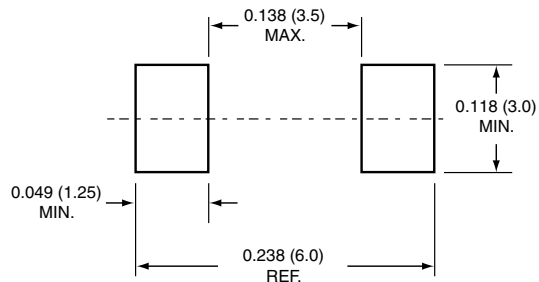
PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

DO-213AB (GL41)



1st Band Denotes Type and Positive End (Cathode)

Mounting Pad Layout





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