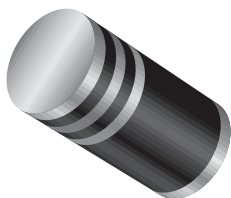


## Surface Mount Glass Passivated Power Voltage-Regulating Diodes



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
- Compliant to RoHS directive 2002/95/EC and in accordance to 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 JESD 22-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 $\mu$ 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** ( $T_A = 25^\circ\text{C}$  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 $(^{(2)})$ $I_{RM}$ (mA <sub>dc</sub> )	MAX. INSTANTANEOUS FORWARD VOLTAGE AT 200 mA $V_F$ (V)
			$Z_{ZT}$ AT $I_{ZT}$	$Z_{ZK}$ AT $I_{ZK}$		$I_R$	$V_R$		
			( $\Omega$ )	( $\Omega$ )	(mA)	( A)	(V)		
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  $T_L = 75^\circ\text{C}$ **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

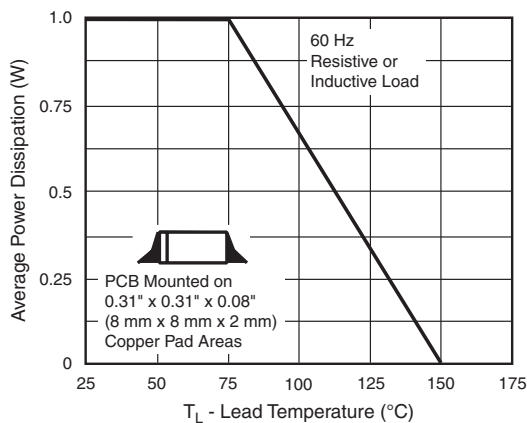
**RATINGS AND CHARACTERISTICS CURVES**( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Figure 1. Maximum Continuous Power Dissipation

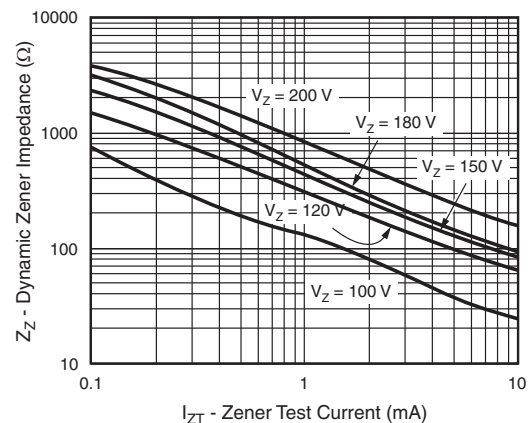


Figure 2. Typical Zener Impedance

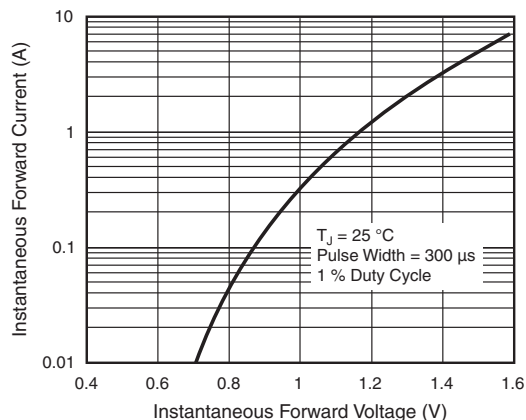


Figure 3. Typical Instantaneous Forward Characteristics

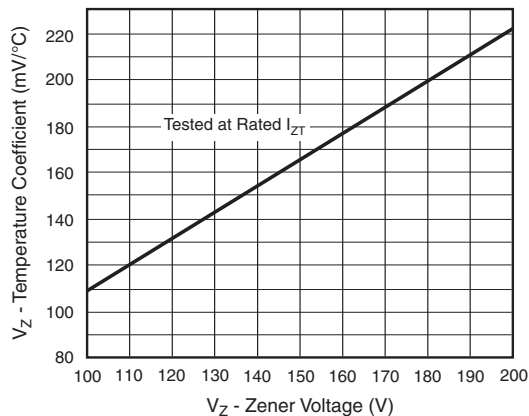


Figure 5. Steady State Power Derating Curve

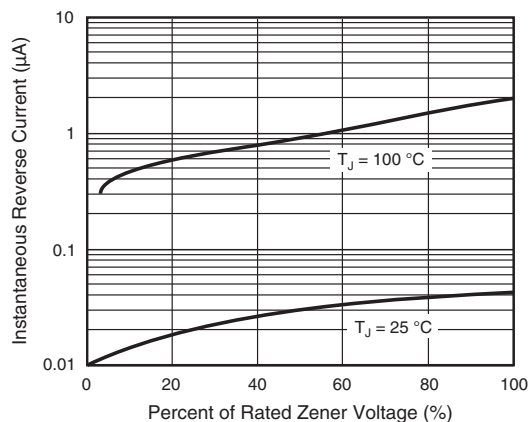


Figure 4. Typical Reverse Characteristics

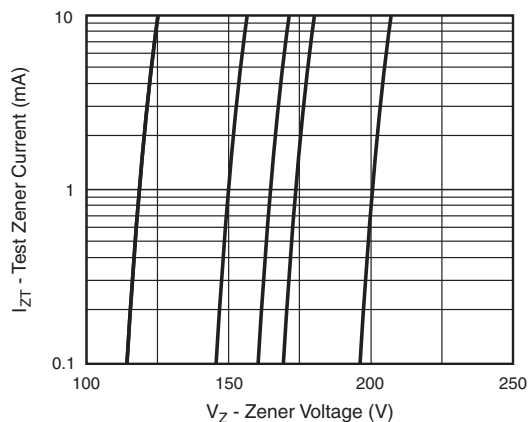
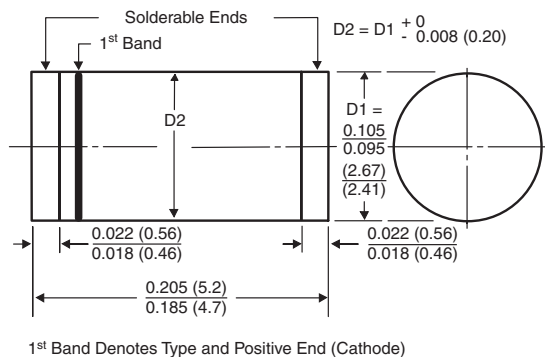


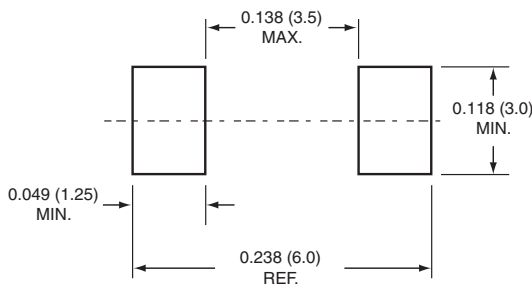
Figure 6. Typical Zener Voltage

### PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

#### DO-213AB (GL41)



#### Mounting Pad Layout





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