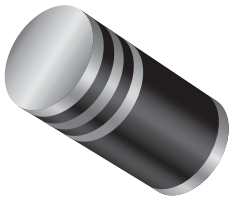
Surface Mount Glass Passivated Power Voltage-Regulating Diodes



GL41 (DO-213AB)

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
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

TYPICAL APPLICATIONS

For general purpose regulation and protection applications.

DESIGN SUPPORT TOOLS AVAILABLE

3D Models

PRIMARY CHARACTERISTICS	
V_Z	100 V to 200 V
P_{tot}	1000 mW
I_R	1.0 µA
T_J max.	150 °C
V_Z specification	Pulse current
Circuit configuration	Single

MECHANICAL DATA

Case: GL41 (DO-213AB)

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
M3 suffix meets JESD 201 class 1A whisker test

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

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 °C unless otherwise noted)

PART NUMBER (1)	ZENER VOLTAGE RANGE			TEST CURRENT		MAXIMUM ZENER IMPEDANCE		MAXIMUM REVERSE CURRENT		MAXIMUM CONTINUOUS FORWARD VOLTAGE	MAXIMUM SURGE CURRENT (2)
	V_Z at I_{ZT}			I_{ZT}	I_{ZK}	Z_{ZT} AT I_{ZT}	Z_{ZK} AT I_{ZK}	I_R at V_R		V_F at 0.5 A	I_{RM}
	V			mA		Ω		μA	V	V	mA_{DC}
	MIN.	NOM.	MAX.			MAX.	MAX.			MAX.	MAX.
ZGL41-100A	95	100	105	3.7	0.25	250	3100	1.0	76.0	1.5	10.0
ZGL41-110A	104	110	116	3.4	0.25	300	4000	1.0	83.6	1.5	9.1
ZGL41-120A	114	120	126	3.1	0.25	380	4500	1.0	91.2	1.5	8.3
ZGL41-130A	124	130	137	2.9	0.25	450	5000	1.0	98.8	1.5	7.7
ZGL41-140A	133	140	147	2.7	0.25	525	5500	1.0	106.4	1.5	7.1
ZGL41-150A	142	150	158	2.5	0.25	600	6000	1.0	114.0	1.5	6.7
ZGL41-160A	152	160	168	2.3	0.25	700	6500	1.0	121.6	1.5	6.3
ZGL41-170A	162	170	179	2.2	0.25	800	6750	1.0	129.2	1.5	5.9
ZGL41-180A	171	180	189	2.1	0.25	900	7000	1.0	136.9	1.5	5.6
ZGL41-190A	180	190	200	2.0	0.25	1050	7500	1.0	144.4	1.5	5.3
ZGL41-200A	190	200	210	1.9	0.25	1200	8000	1.0	152.0	1.5	5.0

Notes

(1) Surge current is a non-repetitive, 8.3 ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC method

(2) Maximum steady state power dissipation is 1.0 W at T_L = 75 °C

ORDERING INFORMATION (Example)

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

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

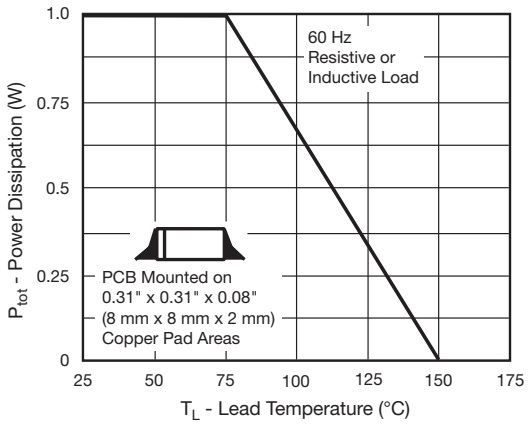


Fig. 1 - Maximum Continuous Power Dissipation

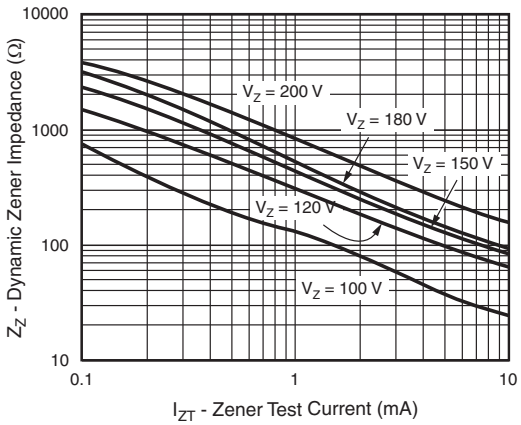


Fig. 2 - Typical Zener Impedance

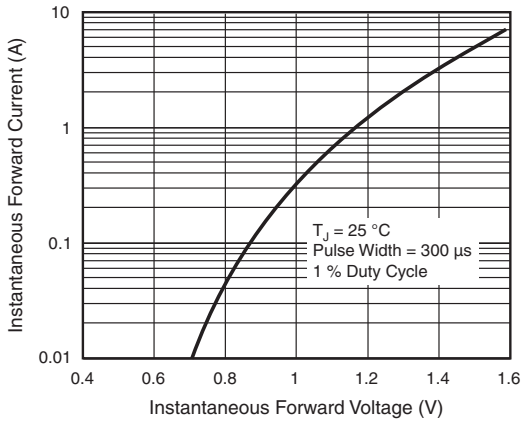


Fig. 3 - Typical Instantaneous Forward Characteristics

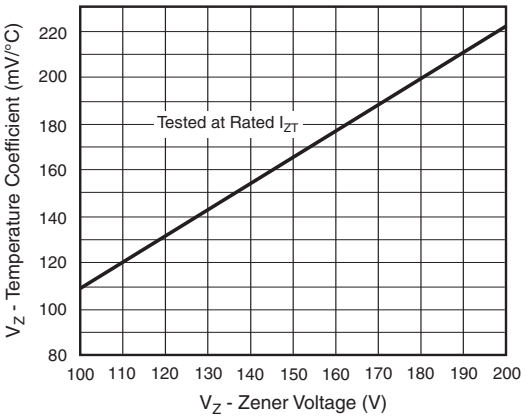


Fig. 5 - Steady State Power Derating Curve

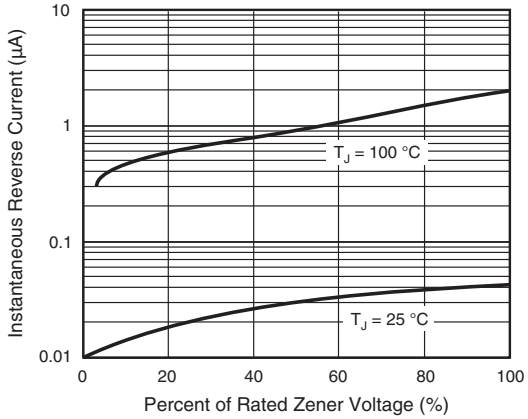


Fig. 4 - Typical Reverse Characteristics

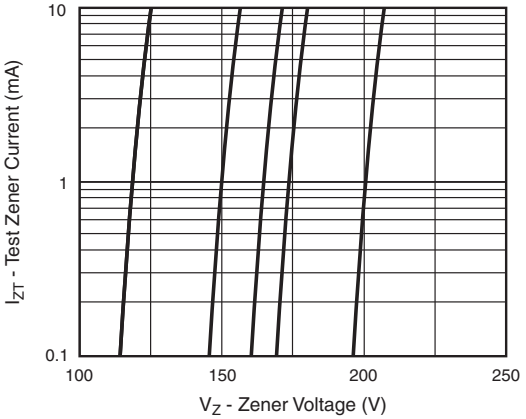
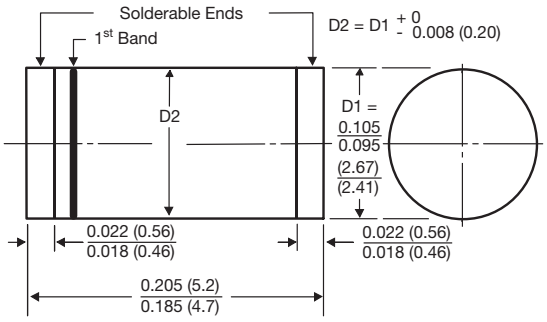


Fig. 6 - Typical Zener Voltage

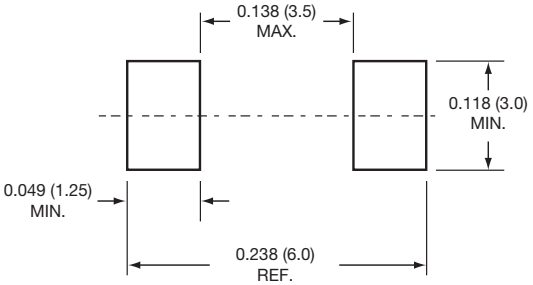
PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

GL41 (DO-213AB)



1st band denotes type and positive end (cathode)

Mounting Pad Layout



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