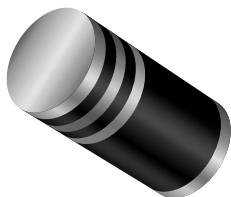


Surface Mount Glass Passivated Power Voltage-Regulating Diodes



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



RoHS
COMPLIANT

TYPICAL APPLICATIONS

For general purpose regulation and protection applications.

PRIMARY CHARACTERISTICS

V_Z	100 V to 200 V
P_{tot}	1000 mW
I_R	1.0 μ A
T_J max.	150 °C
V_Z specification	Pulse current
Int. construction	Single

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

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 ($T_A = 25^\circ\text{C}$ 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 $T_L = 75^\circ\text{C}$
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

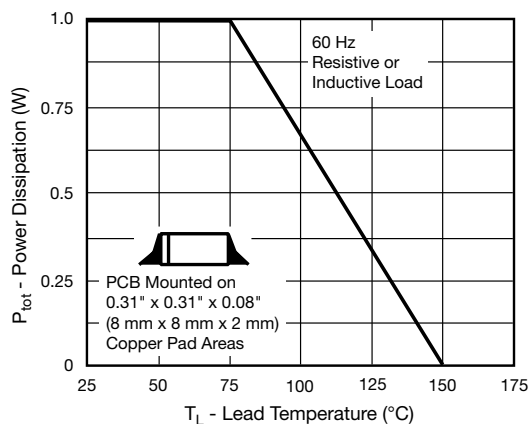
RATINGS AND CHARACTERISTICS CURVES ($T_A = 25^\circ\text{C}$ unless otherwise noted)


Fig. 1 - Maximum Continuous Power Dissipation

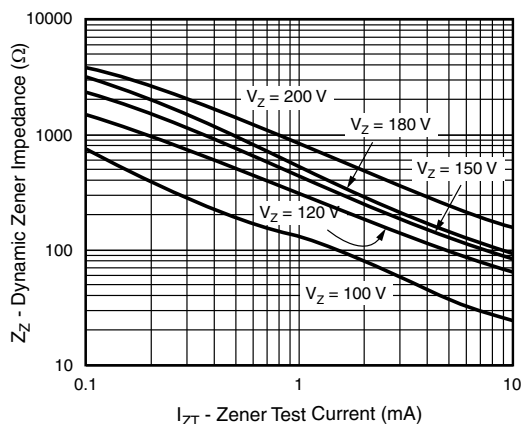


Fig. 2 - Typical Zener Impedance

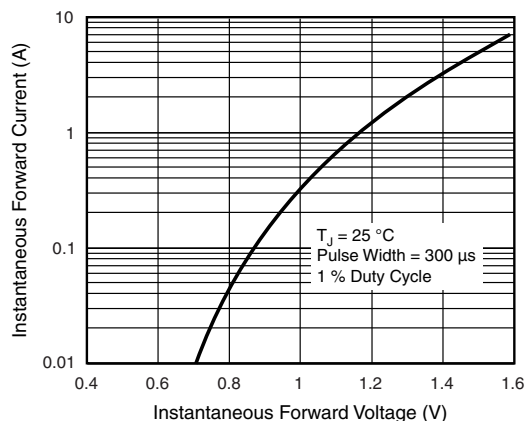


Fig. 3 - Typical Instantaneous Forward Characteristics

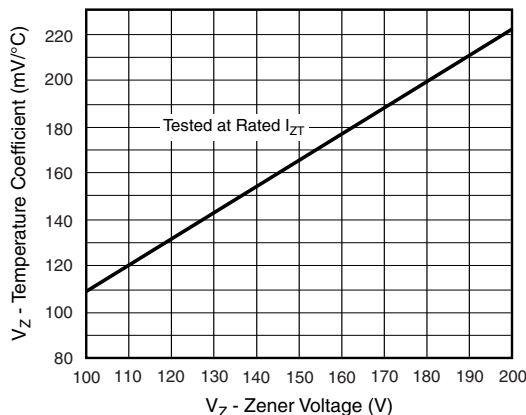


Fig. 5 - Steady State Power Derating Curve

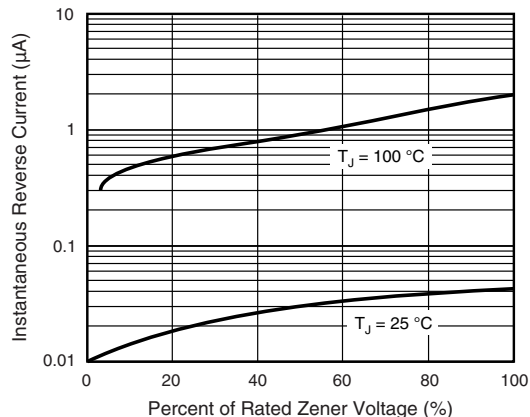


Fig. 4 - Typical Reverse Characteristics

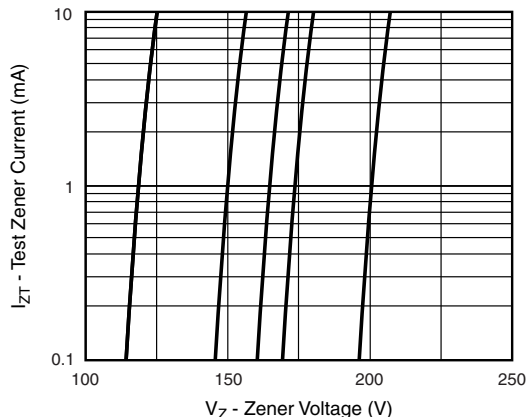
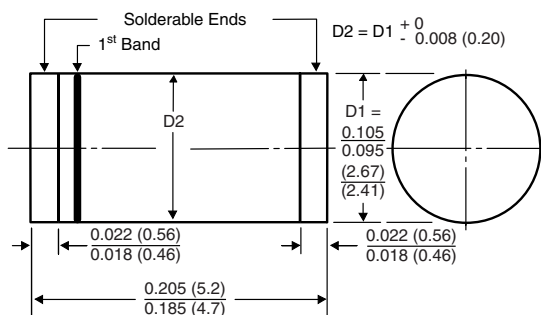


Fig. 6 - Typical Zener Voltage

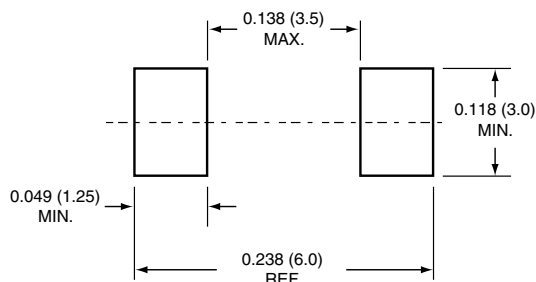
PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

DO-213AB (GL41)



1st Band Denotes Type and Positive End (Cathode)

Mounting Pad Layout





Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.