

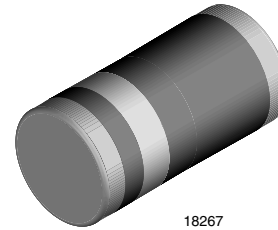
## Zener Diodes

### Features

- Plastic package has underwriters laboratory flammability classification 94 V-0
- For surface mounted applications
- Glass passivated chip junction
- Low Zener impedance
- Low regulation factor
- High temperature soldering guaranteed: 250 °C/10 s at terminals
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC



**RoHS**  
COMPLIANT



### Mechanical Data

**Case:** MELF DO-213AB (plastic)

**Terminals:** solder plated, solderable per MIL-STD-750, method 2026

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

**Mounting position:** any

**Weight:** 0.0046 oz., 116 mg

**Packaging codes/options:**

97/5K per 13" plastic reel (12 mm tape)

96/1.5K per 7" plastic reel (12 mm tape)

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

### Absolute Maximum Ratings

$T_{amb} = 25\text{ °C}$ , unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Zener current (see table "Characteristics")				
Power dissipation		$P_{tot}$	1 <sup>(1)</sup>	W

#### Note

(1) Maximum steady state power dissipation is 1 W at  $T_T = 75\text{ °C}$

### Thermal Characteristics

$T_{amb} = 25\text{ °C}$ , unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		$R_{thJA}$	170	°C/W
Junction temperature		$T_j$	150	°C
Storage temperature		$T_{stg}$	- 65 to + 150	°C

### Electrical Characteristics

Part number	Nominal Zener voltage <sup>(1)</sup>	Test current	Maximum dynamic impedance			Maximum DC reverse leakage current		Maximum Zener current <sup>(2)</sup>	Maximum forward voltage
	$V_Z$ at $I_{ZT}$		$I_{ZT1}$	$Z_{ZT}$ at $I_{ZT}$	$Z_{ZK}$ at $I_{ZK}$	$I_{ZK}$	$I_R$		
	V	mA	$\Omega$	$\Omega$	mA	$\mu A$	V	$I_{ZM}$ mA <sub>pk</sub>	$V_F$ at 200 mA V
GLL4735	6.2	41	2	700	1	50	3	730	1.2
GLL4736	6.8	37	3.5	700	1	10	4	660	1.2
GLL4737	7.5	34	4	700	0.5	10	5	605	1.2
GLL4738	8.2	31	4.5	700	0.5	10	6	550	1.2
GLL4739	9.1	28	5	700	0.5	10	7	500	1.2
GLL4740	10	25	7	700	0.25	10	7.6	454	1.2
GLL4741	11	23	8	700	0.25	5	8.4	414	1.2
GLL4742	12	21	9	700	0.25	5	9.1	380	1.2
GLL4743	13	19	10	700	0.25	5	9.9	344	1.2
GLL4744	15	17	14	700	0.25	5	11.4	305	1.2
GLL4745	16	15.5	16	700	0.25	5	12.2	285	1.2
GLL4746	18	14	20	750	0.25	5	13.7	250	1.2
GLL4747	20	12.5	22	750	0.25	5	15.2	225	1.2
GLL4748	22	11.5	23	750	0.25	5	16.7	205	1.2
GLL4749	24	10.5	25	750	0.25	5	18.2	190	1.2
GLL4750	27	9.5	35	750	0.25	5	20.6	170	1.2
GLL4751	30	8.5	40	1000	0.25	5	22.8	150	1.2
GLL4752	33	7.5	45	1000	0.25	5	25.1	135	1.2
GLL4753	36	7	50	1000	0.25	5	27.4	125	1.2
GLL4754	39	6.5	60	1000	0.25	5	29.7	115	1.2
GLL4755	43	6	70	1500	0.25	5	32.7	110	1.2
GLL4756	47	5.5	80	1500	0.25	5	35.8	95	1.2
GLL4757	51	5	95	1500	0.25	5	38.8	90	1.2
GLL4758	56	4.5	110	2000	0.25	5	42.6	80	1.2
GLL4759	62	4	125	2000	0.25	5	47.1	70	1.2
GLL4760	68	3.7	150	2000	0.25	5	51.7	65	1.2
GLL4761	75	3.3	175	2000	0.25	5	56	60	1.2
GLL4762	82	3	200	3000	0.25	5	62.2	55	1.2
GLL4763	91	2.8	250	3000	0.25	5	69.2	50	1.2

#### Notes

<sup>(1)</sup> Standard voltage tolerance is  $\pm 10\%$ , suffix A =  $\pm 5\%$

<sup>(2)</sup> Surge current is a non-repetitive, 8.3 ms pulse width square wave or equivalent sine-wave superimposed on  $I_{ZT}$  per JEDEC method

## Typical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

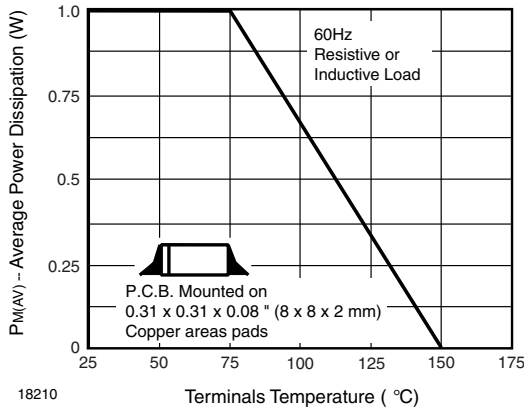


Figure 1. Maximum Continuous Power Dissipation

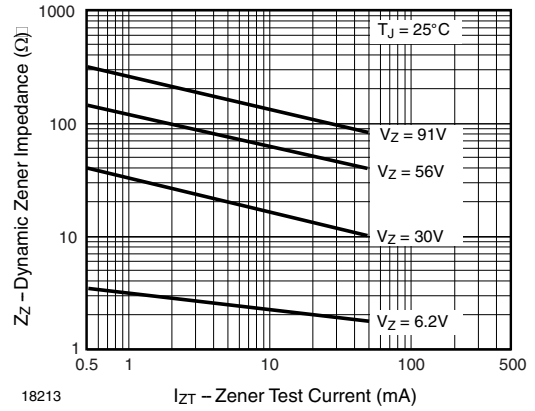


Figure 4. Typical Zener Impedance

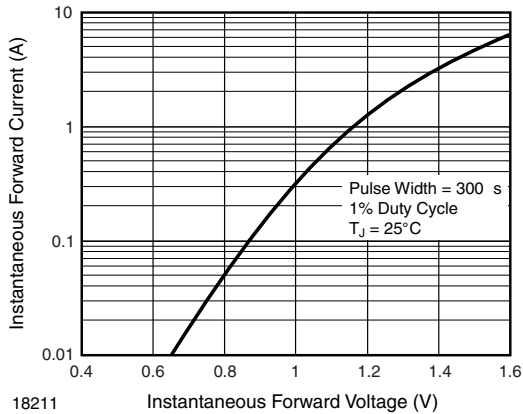


Figure 2. Typical Instantaneous Forward Characteristics for GLL4763

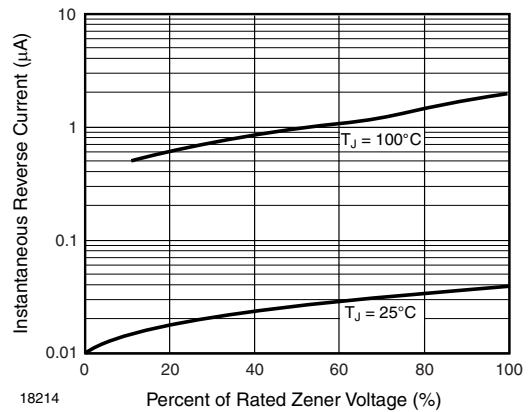


Figure 5. Typical Reverse Characteristics

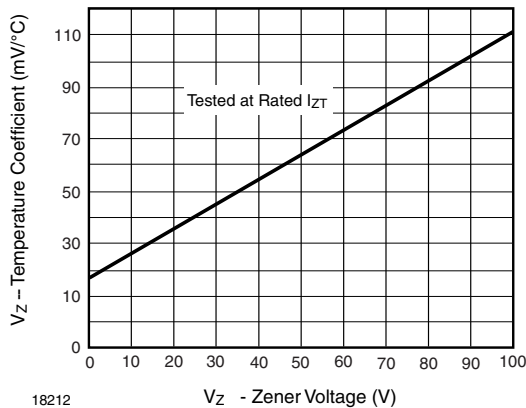


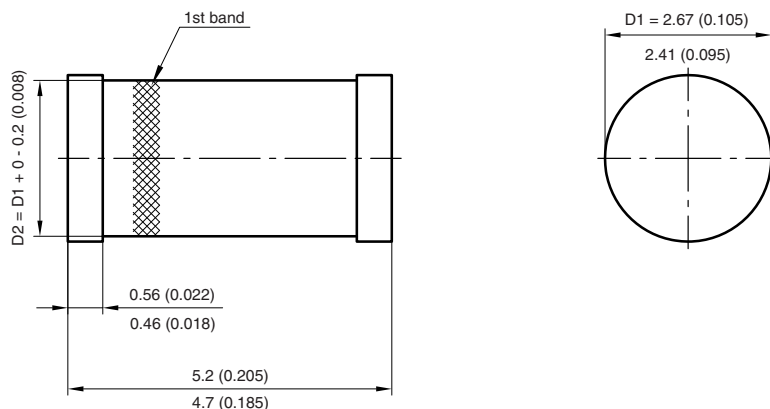
Figure 3. Typical Temperature Coefficients

# GLL4735 to GLL4763A



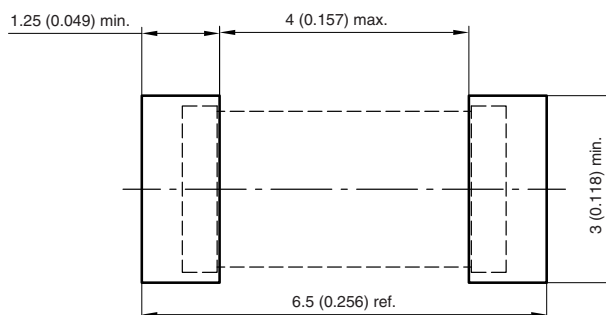
Vishay Semiconductors

Package Dimensions in millimeters (inches): MELF DO-213AB (plastic)



1st band denotes type and positive end (cathode)

Foot print recommendation:



Document-No.: S8-V-3453.03-001 (4)  
Created-Date: 13.May.2009  
18268



## Disclaimer

All product specifications and data are subject to change without notice.

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 herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

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.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.