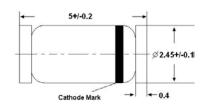


### Silicon Planar Power Zener Diodes

For use in stabilizing and clipping circuits with high power rating. Standard Zener voltage tolerance is ±10%.

#### LL-41(DO-213AB)



Glass case MELF Dimensions in mm

## Absolute Maximum Ratings (T<sub>a</sub> = 25°C)

Parameter	Symbol	Value	Unit
Power Dissipation	P <sub>D</sub>	1 <sup>1)</sup>	W
Operating Junction Temperature	Tj	175	°C
Storage Temperature Range	T <sub>stg</sub>	- 65 to + 175	°C

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature.

#### **Thermal Characteristics**

Parameter	Symbol	Max.	Unit	
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	170 <sup>1)</sup>	°C/W	
Forward Voltage at I <sub>F</sub> = 200 mA	$V_{F}$	1.2	V	

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature.

# Characteristics at T<sub>a</sub> = 25°C

Туре	Zener Voltage <sup>3)</sup>			Dynamic Resistance 1)			Reverse Current		Maximum Surge Current <sup>4)</sup>	Maximum Regulator	
	Vz	@Izт ('	V)	at I <sub>ZT</sub>	$Z_{ZT}$ at $I_{ZT}$	Z <sub>ZK</sub>	at I <sub>ZK</sub>	I <sub>R</sub> (µA)	at V <sub>R</sub>	at T <sub>a</sub> = 25°C	Current 2)
	Nom	Min.	Max.	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max.	(V)	I <sub>ZSM</sub> (mA)	I <sub>ZM</sub> (mA)
ZM4742A-GS08	12	10.8	13.2	21	9	700	0.25	5	9.1	380	76

<sup>1)</sup> The dynamic resistance is derived from the 60 Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener Current (I<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed on I<sub>ZT</sub> or I<sub>ZK</sub>. Dynamic resistance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

<sup>&</sup>lt;sup>2)</sup> Valid provided that electrodes are kept at ambient temperature.

 $<sup>^{3)}</sup>$  Tested with pulses tp = 20 ms.

<sup>&</sup>lt;sup>4)</sup>The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current I<sub>ZT</sub>.



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