Silicon Planar Power Zener Diodes

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

Absolute Maximum Ratings (T_a = 25°C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	1 [1)]	W
Operating Junction Temperature	T_j	175	℃
Storage Temperature Range	T_{stg}	- 65 to + 175	℃

[1)] Valid provided that electrodes are kept at ambient temperature.

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	170 [1)]	℃/W
Forward Voltage at I_F= 200 mA	V_F	1.2	V

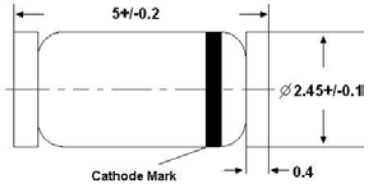
[1)] Valid provided that electrodes are kept at ambient temperature.

Characteristics at T_a = 25℃

Type	Zener Voltage [3)]				Dynamic Resistance [1)]			Reverse Current		Maximum Surge Current [4)] at T_a = 25℃	Maximum Regulator Current [2)]
	V_Z@I_{ZT} (V)			at I_{ZT}	Z_{ZT} at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R(μA)	at V_R (V)		
	Nom	Min.	Max.	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max.		I_{ZSM} (mA)	I_{ZM} (mA)
HZMY12GS08	12	10.8	13.2	21	9	700	0.25	5	9.1	380	76

[1)] 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_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. Dynamic resistance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.
[2)] Valid provided that electrodes are kept at ambient temperature.
[3)] Tested with pulses tp = 20 ms.
[4)] 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_{ZT}.

LL-41(DO-213AB) Package Information



Glass case MELF
Dimensions in mm

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