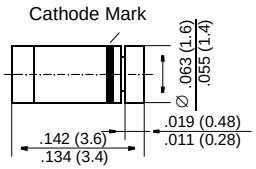
LL1.5 THRU LL2.4

Voltage Stabilizers

MiniMELF



Dimensions in inches and (millimeters)

FEATURES

- Silicon Planar Stabilizer Diodes



- Monolithic integrated analog circuits in MiniMELF case, designed for small power stabilizer and limitation circuits, providing low dynamic resistance and high-quality stabilization performance as well as low noise. In the reverse direction, these devices show the behavior of forward-biased silicon diodes.

- The end of the device marked with the cathode ring is to be connected:
  LL1.5 and LL2 to the negative pole of the supply voltage
  LL2.4 to the positive pole of the supply voltage

- These diodes are also available in DO-35 case with the type designation ZTE1.5 … ZTE2.4.

MECHANICAL DATA

Case: MiniMELF Glass Case (SOD-80)
Weight: approx. 0.05 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Value	Unit
Operating Current see Table “Characteristics”			
Inverse Current	I_F	100	mA
Power Dissipation at T_{amb} = 25 °C	P_{tot}	300[1)]	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	–55 to +150	°C

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

GENERAL SEMICONDUCTOR®

LL1.5 THRU LL2.4

ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at I_F = 10 mA	V_F	–	–	1.1	V
Temperature Coefficient of the stabilized voltage at I_Z = 5 mA **LL1.5, LL2**	α_{VZ}	–	–26	–	10^{-4}/K
LL2.4	α_{VZ}	–	–34	–	10^{-4}/K
Thermal Resistance Junction to Ambient Air	R_{thJA}	–	–	0.4[1)]	K/mW

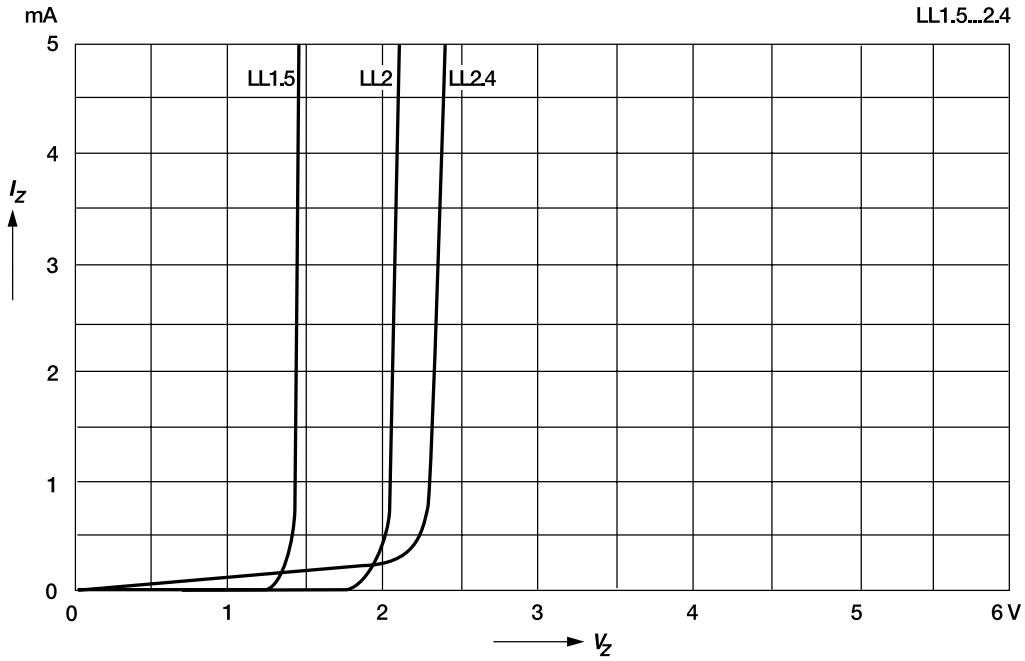
[1)] Valid provided that electrodes are kept at ambient temperature.

Type	Operating voltage at I_Z = 5 mA[1)] V_Z V	Dynamic resistance at I_Z = 5 mA r_{zj} Ω	Permissible operating current at T_{amb} = 25 °C[2)] I_Z max. mA
LL1.5	1.35 … 1.55	13 (< 20)	120
LL2	2.0 … 2.3	18 (< 30)	120
LL2.4	2.2 … 2.56	14 (< 20)	120

[1)] Tested with pulses t_p = 5 ms
[2)] Valid provided that electrodes are kept at ambient temperature.

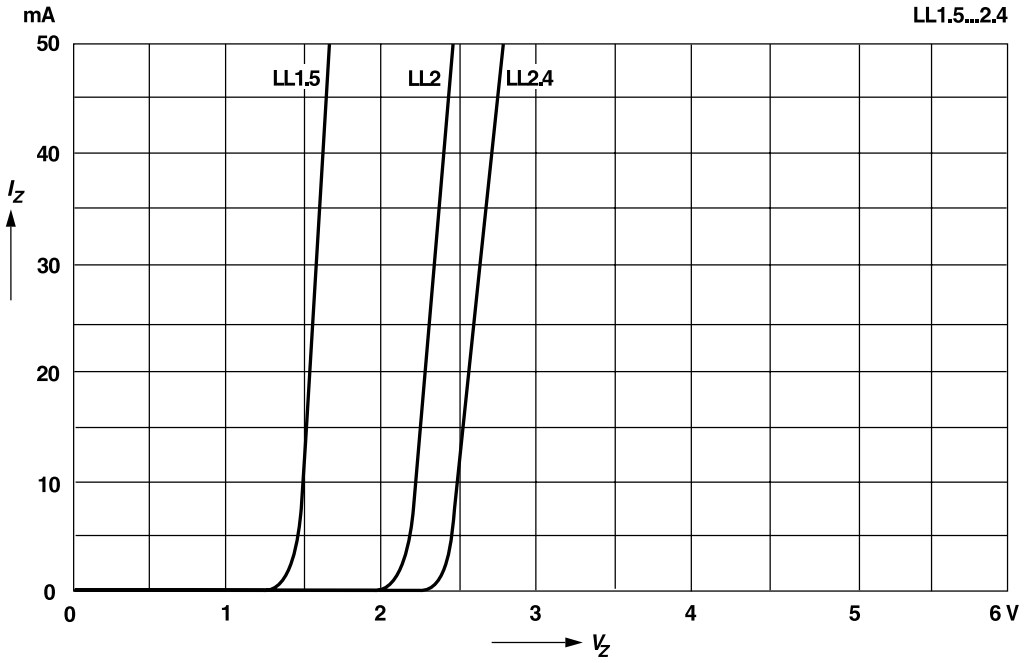
Breakdown characteristics

T_j = constant (pulsed)



Breakdown characteristics

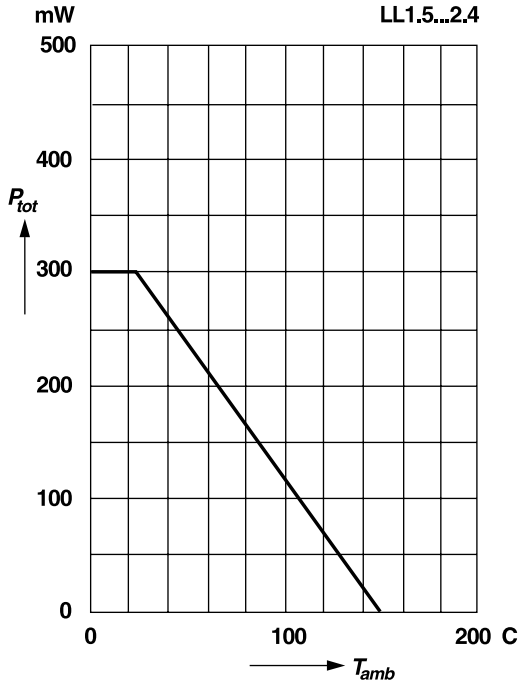
T_j = constant (pulsed)



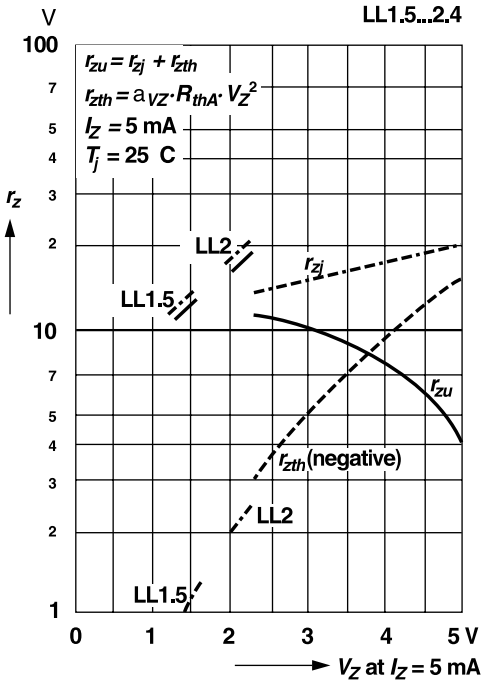
RATINGS AND CHARACTERISTIC CURVES LL1.5 THRU LL2.4

Admissible power dissipation versus ambient temperature

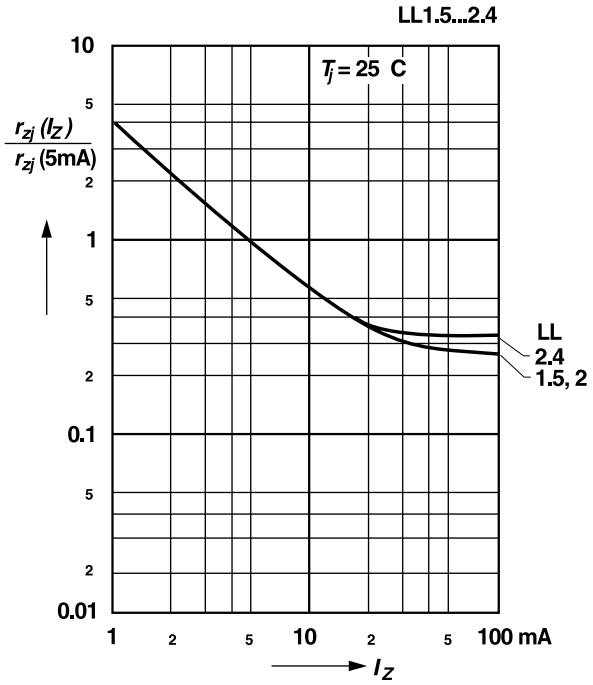
Valid provided that electrodes are kept at ambient temperature.



Dynamic resistance versus operating voltage



Dynamic resistance versus operating current, normalized



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