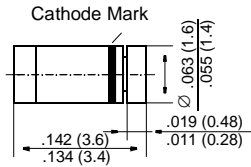


# LL1.5 THRU LL2.4

## 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 $T_{amb} = 25\text{ °C}$	$P_{tot}$	300 <sup>1)</sup>	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_S$	-55 to +150	°C

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

# LL1.5 THRU LL2.4

## ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

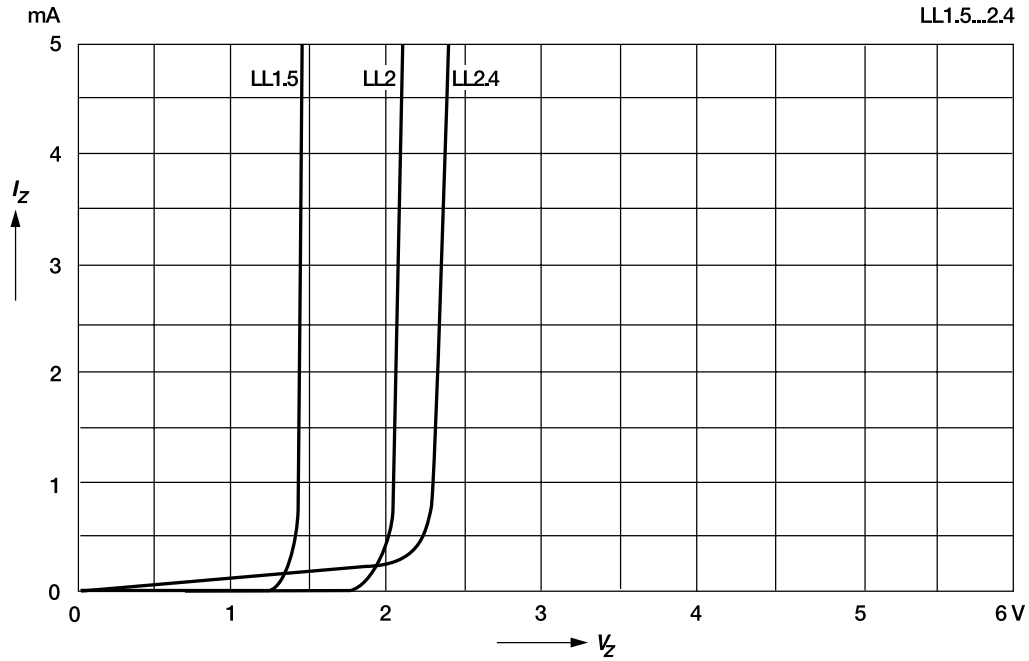
	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 10 \text{ mA}$	$V_F$	–	–	1.1	V
Temperature Coefficient of the stabilized voltage at $I_Z = 5 \text{ mA}$ <b>LL1.5, LL2</b> <b>LL2.4</b>	$\alpha_{VZ}$	–	–26	–	$10^{-4}/\text{K}$
	$\alpha_{VZ}$	–	–34	–	$10^{-4}/\text{K}$
Thermal Resistance Junction to Ambient Air	$R_{thJA}$	–	–	0.4 <sup>1)</sup>	K/mW
1) Valid provided that electrodes are kept at ambient temperature.					

Type	Operating voltage at $I_Z = 5 \text{ mA}$ <sup>1)</sup> $V_Z \text{ V}$	Dynamic resistance at $I_Z = 5 \text{ mA}$ $r_{zj} \Omega$	Permissible operating current at $T_{amb} = 25 \text{ °C}$ <sup>2)</sup> $I_Z \text{ max. mA}$
<b>LL1.5</b>	1.35 ... 1.55	13 (< 20)	120
<b>LL2</b>	2.0 ... 2.3	18 (< 30)	120
<b>LL2.4</b>	2.2 ... 2.56	14 (< 20)	120
1) Tested with pulses $t_p = 5 \text{ ms}$ 2) Valid provided that electrodes are kept at ambient temperature.			

# RATINGS AND CHARACTERISTIC CURVES LL1.5 THRU LL2.4

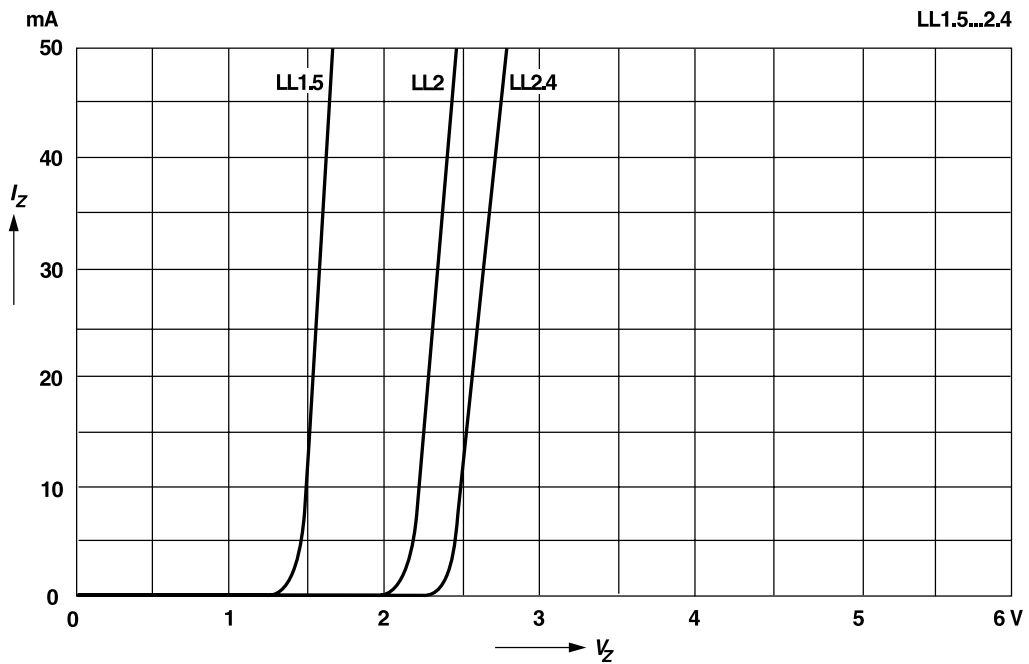
## Breakdown characteristics

$T_j = \text{constant (pulsed)}$



## Breakdown characteristics

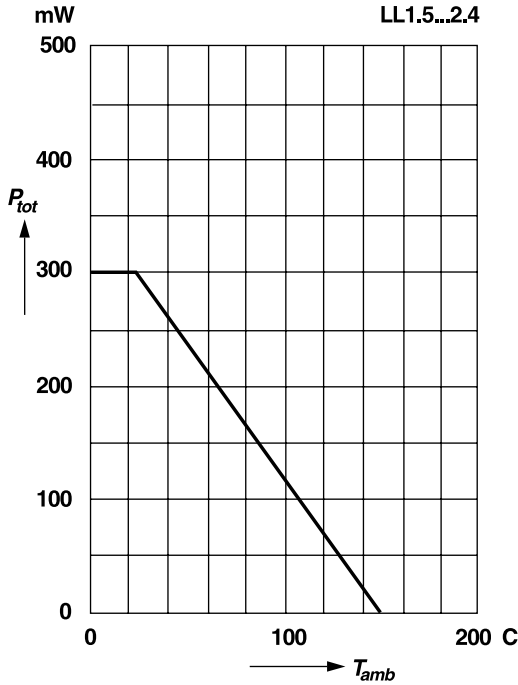
$T_j = \text{constant (pulsed)}$



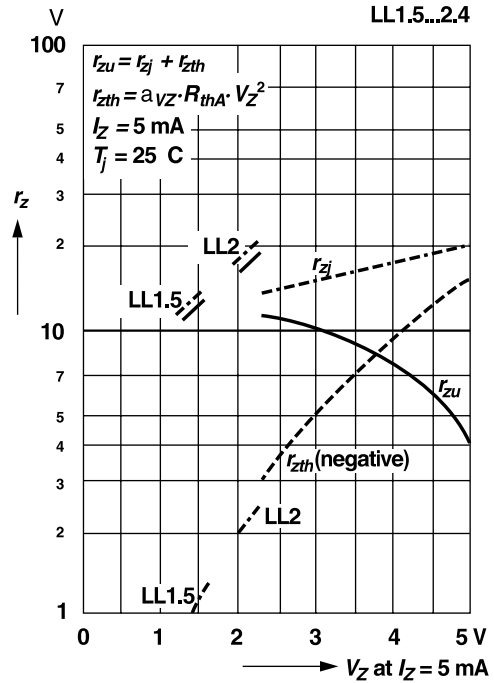
# RATINGS AND CHARACTERISTIC CURVES LL1.5 THRU LL2.4

## 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

