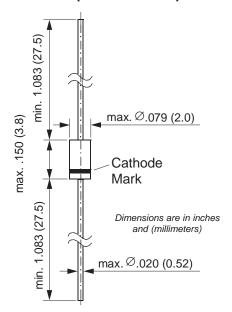


Voltage Stabilizers



DO-204AH (DO-35 Glass)



Features

- Silicon Stabilizer Diodes
- Monolithic integrated analog circuits 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 ZTE device marked with the cathode ring is to be connected: ZTE1.5 and ZTE2 to the negative pole of the supply voltage; ZTE2.4 thru ZTE5.1 to the positive pole of the supply voltage.
- These diodes are also available in MiniMELF case with the type designation LL1.5 ... LL 5.1.

Mechanical Data

Case: DO-35 Glass Case Weight: approx. 0.13g Packaging codes/options:

D7/10K per 13" reel (52mm tape), 20K/box D8/10K per Ammo tape, (52mm tape), 20K/box

Maximum Ratings (TA = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Operating Current (see Table "Characteristics")			
Inverse Current	lF	100	mA
Power dissipation at T _{amb} = 25°C	Ptot	300(1)	mW
Junction temperature	TJ	150	°C
Storage temperature range	Ts	-55 to +150	°C

Electrical and Thermal Characteristics (TA = 25°C unless otherwise noted)

Parameter		Symbol	Min.	Тур.	Max.	Unit
Forward Voltage at I _F = 10 mA		VF	_	_	1.1	V
Temperature Coefficient of the stabilized voltage at $I_Z = 5$ mA	ZTE1.5, ZTE2 ZTE2.4, ZTE5.1	$\begin{array}{c} \alpha_{\text{VZ}} \\ \alpha_{\text{VZ}} \end{array}$	-	-26 -34	- -	10 ⁻⁴ /°C 10 ⁻⁴ /°C
Thermal resistance junction to amb	ient air	RθJA	_	_	400 ⁽¹⁾	°C/W

ZTE1.5 thru ZTE5.1

Voltage Stabilizers

Electrical Characteristics (TA = 25°C unless otherwise noted)

Туре	Operating Voltage at Iz = 5mA ⁽²⁾ Vz (Ω)	Dynamic resistance at $Iz = 5mA$ $r_{zj}(\Omega)$	Permissable operating current at T _{amb} = 25°C ⁽¹⁾ Iz max. (mA)
ZTE1.5	1.35 1.55	13(<20)	120
ZTE2	2.0 2.3	18(<30)	120
ZTE2.4	2.2 2.56	14(<20)	120
ZTE2.7	2.5 2.9	15(<20)	105
ZTE3	2.8 3.2	15(<20)	95
ZTE3.3	3.1 3.5	16(<20)	90
ZTE3.6	3.4 3.8	16(<25)	80
ZTE3.9	3.7 4.1	17(<25)	75
ZTE4.3	4.0 4.6	17(<25)	65
ZTE4.7	4.4 5.0	18(<25)	60
ZTE5.1	4.8 5.4	18(<25)	55

Notes: (1) Valid provided that electrodes are kept at ambient temperature at a distance of 8mm from case

⁽²⁾ Tested with pulses $t_p = 5ms$

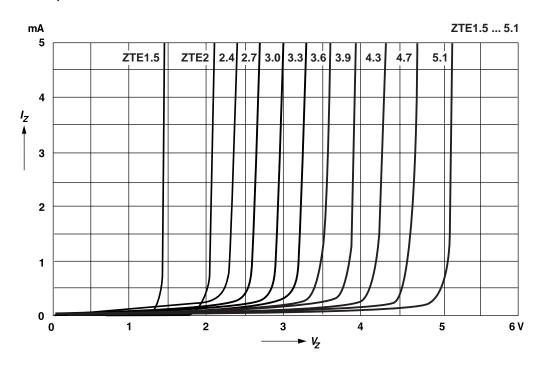


Voltage Stabilizers

Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

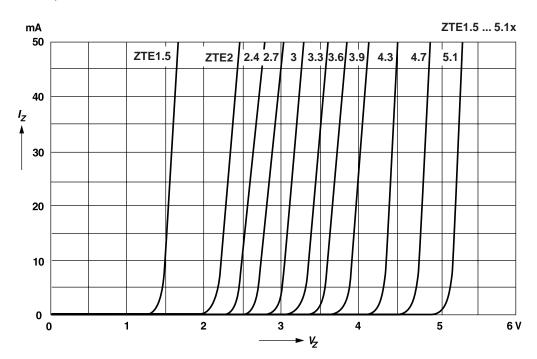
Breakdown characteristics

T_i = constant (pulsed)



Breakdown characteristics

T_j = constant (pulsed)



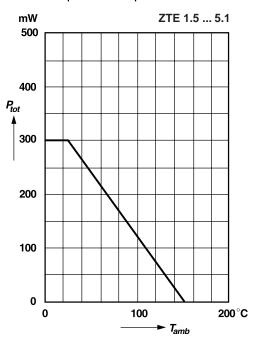


Voltage Stabilizers

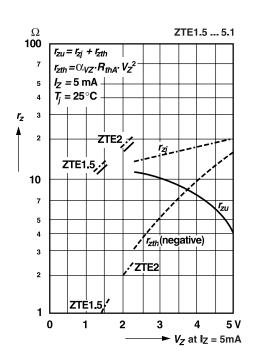
Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Admissible power dissipation versus ambient temperature

Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature



Dynamic resistance versus operating voltage



Dynamic resistance versus operating current, normalized

