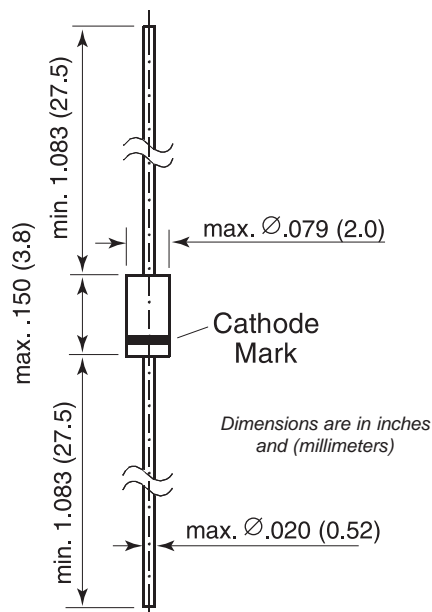


DO-204AH (DO-35 Glass)



Features

- Temperature-Compensated Stabilizing Circuits
- Monolithic linear integrated circuits with extremely short thermal run-in time producing a constant temperature-compensated voltage. They are particularly suitable for stabilizing the tuning voltage in radio and TV tuners employing voltage-variable capacitance diodes.

Mechanical Data

Case: DO-35 Glass Case

Weight: approx. 0.13 g

Packaging codes/options:

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

D8/10K per Ammo tape, (52mm tape), 20K/box

Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Operating Current (see Table "Characteristics")			
Junction temperature	T_J	150	$^\circ\text{C}$
Storage temperature range	T_S	-20 to +150	$^\circ\text{C}$

Electrical and Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Temperature Coefficient of the operating voltage at $I_Z = 5 \text{ mA} \pm 0.5$ in the range of $T_{\text{amb}} = 20$ to 60°C	α_{V_Z}	-10	-2	+5 ⁽¹⁾	$10^{-5}/^\circ\text{C}$
Thermal Run-in-Time	t_{th}	—	-20 ⁽²⁾	—	s
Thermal resistance junction to ambient air	$R_{\theta JA}$	—	—	400	$^\circ\text{C}/\text{W}$

Type	Operating Voltage at $I_Z = 5 \text{ mA}$ ⁽³⁾ V_Z (V)	Dynamic resistance at $I_Z = 5 \text{ mA}$ r_{Zj} (W)	Permissible operating at $T_{\text{amb}} = 25^\circ\text{C}$ ⁽⁴⁾ I_Z max. (mA)
ZTK6.8	6.4 ... 7.1	10 (<25)	36
ZTK9	8 ... 10	10 (<25)	27
ZTK11	10 ... 12	10 (<25)	1
ZTK18	16 ... 20	11 (<25)	13
ZTK22	20 ... 24	11 (<25)	1
ZTK27	24 ... 30	12 (<25)	8
ZTK33A	30 ... 32	12 (<25)	7
ZTK33B	32 ... 34	12 (<25)	7
ZTK33C	34 ... 36	12 (<25)	7

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

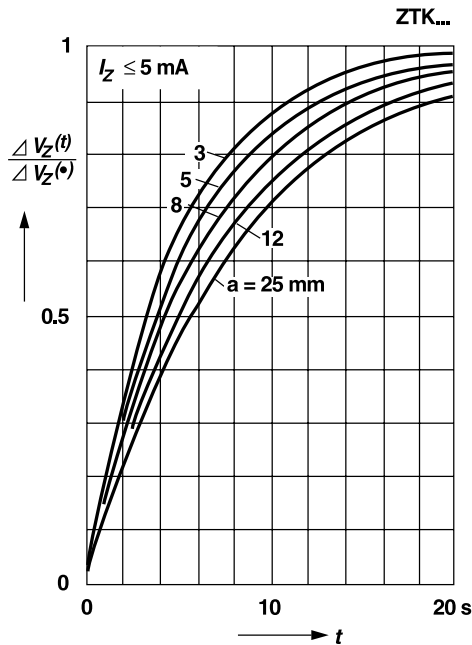
(2) At the end of this time ΔV_Z has reached 90% of its final value $\Delta V_{Z \text{ max}}$. $\Delta V_{Z \text{ max}} = V_Z(a) - V_Z(0)$, where $V_Z(0) = V_Z$ in the instant of turn-on and $V_Z(a) = V_Z$ at thermal equilibrium

(3) Tested with pulses $t_p = 5 \text{ ms}$

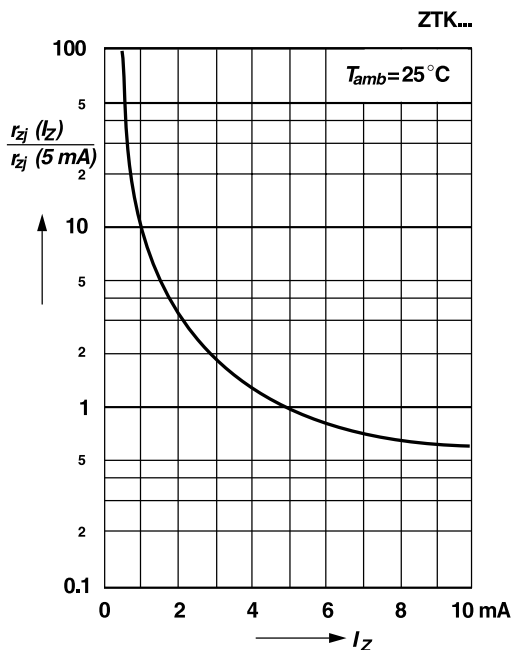
(4) Valid provided that leads are kept at ambient temperature at a distance of 8mm from case.

Ratings and Characteristic Curves T_A = 25°C unless otherwise noted.

**Time dependence of ΔV_Z after turn-on
for different distances between case
and point of ambient temperature
on the leads**

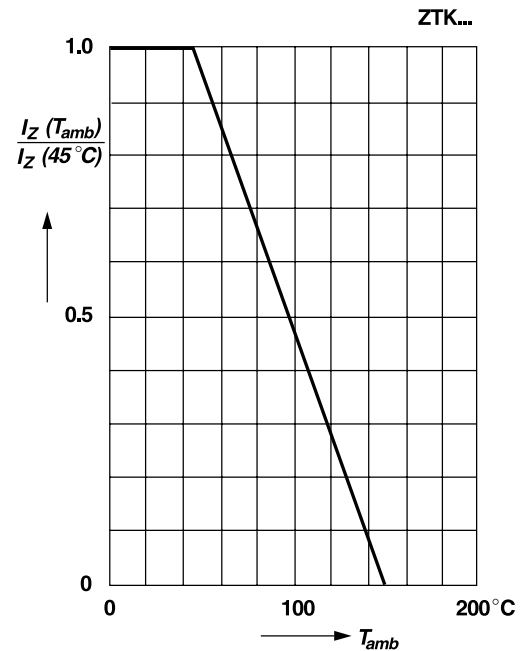


**Dynamic resistance
versus operating current**



**Permissible operating current
versus ambient temperature**

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



**Change of temperature coefficient
versus operating current**

