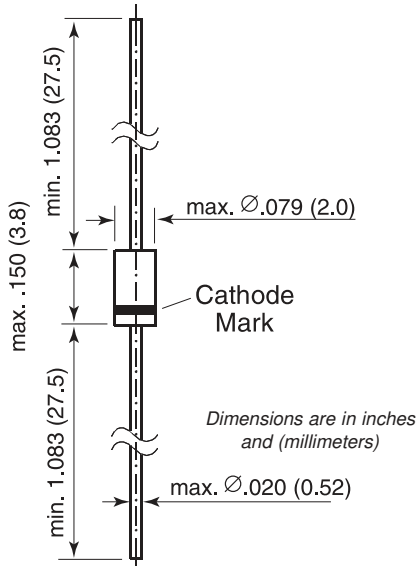


Voltage Stabilizers

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°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Operating Current (see Table "Characteristics")			
Junction temperature	T _J	150	°C
Storage temperature range	T _S	-20 to +150	°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Temperature Coefficient of the operating voltage at I _Z = 5 mA ±0.5 in the range of T _{amb} = 20 to 60°C	α _{VZ}	-10	-2	+5 ⁽¹⁾	10 ⁻⁵ /°C
Thermal Run-in-Time	t _{th}	-	-20 ⁽²⁾	-	s
Thermal resistance junction to ambient air	R _{θJA}	-	-	400	°C/W

Type	Operating Voltage at I _Z = 5mA ⁽³⁾ V _Z (V)	Dynamic resistance at I _Z = 5mA r _{ZJ} (W)	Permissible operating at T _{amb} = 25°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 ΔV_Z max. ΔV_Z 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 = 5ms

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

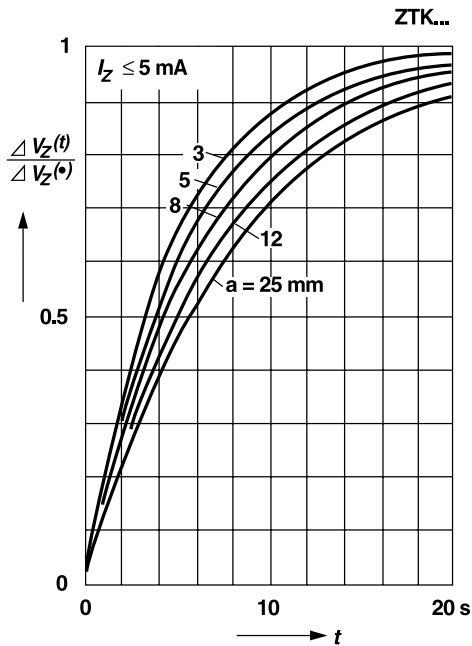
ZTK6.8 thru ZTK33

Vishay Semiconductors
formerly General Semiconductor



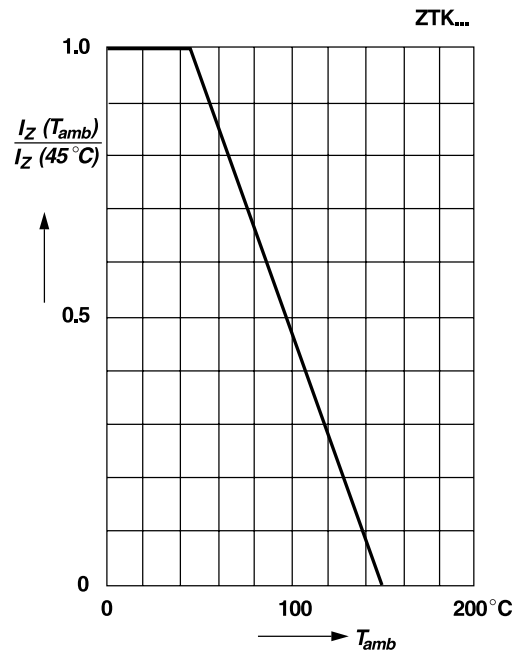
Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

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

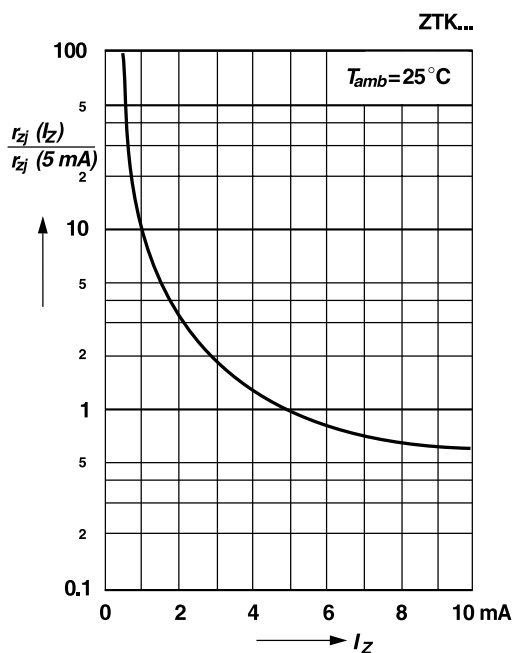


Permissible operating current versus ambient temperature

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



Dynamic resistance versus operating current



Change of temperature coefficient versus operating current

