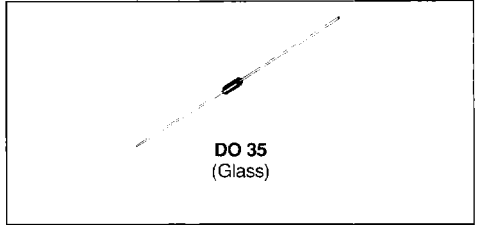


ZENER DIODES

- A PRONOUNCED LOW CURRENT AVALANCHE CHARACTERISTICS
- A REGULATION FACTOR GUARANTEED ACROSS A LARGE CURRENT RANGE (UP TO TWO DECADES OF I_Z)
- SPECIFIED NOISE LEVEL

DESCRIPTION

The T-LVA range has been specially developed for the range of Zener voltage between 4.7V to 10V.


ABSOLUTE RATINGS (limiting values)

Symbol	Parameter	Value	Unit
P_{TO}	Power Dissipation*	500	mW
T_{stg} T_j	Storage and Junction Temperature Range	- 65 to 200 - 65 to 175	°C
T_L	Maximum Lead Temperature for Soldering during 10s at 4mm from Case	230	°C

THERMAL RESISTANCE

Symbol	Parameter	Value	Unit
$R_{th(j-a)}$	Junction-ambient*	300	°C/W

* On infinite heatsink with 4mm lead length.

ELECTRICAL CHARACTERISTICS
GENERAL PURPOSE

Types	V_{ZT}/I_{ZT}			r_{ZT}/I_{ZT}	I_R / V_R		Noise Density @ 250 μ A max (μ V/ \sqrt Hz) (5)
	nom (V) (1) (2) (3)	I_{ZT} (mA)	(Ω) (4)		(μ A)	(V)	
T-LVA 47A	4.7	10	15	4.0	2.0	4	
T-LVA 51A	5.1	5	15	0.1	2.0	4	
T-LVA 56A	5.6	1	40	0.05	3.0	4	
T-LVA 62A	6.2	1	50	0.05	4.0	4	
T-LVA 68A	6.8	1	50	0.05	5.0	4	
T-LVA 75A	7.5	1	100	0.01	6.0	4	
T-LVA 82A	8.2	1	100	0.01	6.5	4	
T-LVA 91A	9.1	1	100	0.01	8.0	4	
T-LVA 100A	10.0	1	100	0.01	9.0	4	

Forward voltage drop : $V_F < 1.5V$ ($T_{amb} = 25^\circ C$, $I_F = 200mA$)

- Notes :**
1. For other voltages, consult the manufacturer.
 2. Tolerance on nominal V_{ZT} value : + 5%
 3. For other tolerances, consult the manufacturer.
 4. Measured @ DC test current with 10% AC superimposed (50Hz).
 5. Noise measured at 100Hz with a diode noise analyser "Quan-Tech" Model 327- Bandpass 1000Hz.

T-LVA Series

ELECTRICAL CHARACTERISTICS (continued)

HIGH PERFORMANCE

Types	V_{ZT}/I_{ZT}	I_{ZT}	r_{ZT}/I_{ZT}	I_R / V_R		Noise Density @ 250 μ A (7) max (μ V/ \sqrt{Hz})	Maximum Regulation $I_{ZT} - I_{ZL}$	
	(1) (2) (4) nom (V)						(5) (Ω)	(μ A)
T-LVA 347A	4.7	10	10	2.0	2.0	1	0.50	1.0
T-LVA 351A	5.1	5	10	2.0	3.0	1	0.30	0.25
T-LVA 356A	5.6	1	40	2.0	4.5	1	0.10	0.05
T-LVA 362A	6.2	1	45	0.5	5.6	1	0.10	0.01
T-LVA 368A	6.8	1	50	0.05	6.2	1	0.10	0.01
T-LVA 375A	7.5	1	50	0.01	6.8	1	0.10	0.01
T-LVA 382A	8.2	1	60	0.01	7.5	1	0.10	0.01
T-LVA 391A	9.1	1	60	0.01	8.2	2	0.10	0.01
T-LVA 3100A	10.0	1	60	0.01	9.1	2	0.10	0.01

Forward voltage drop : $V_F \leq 1.2V$ ($T_{amb} = 25^\circ C$, $I_F = 200mA$).

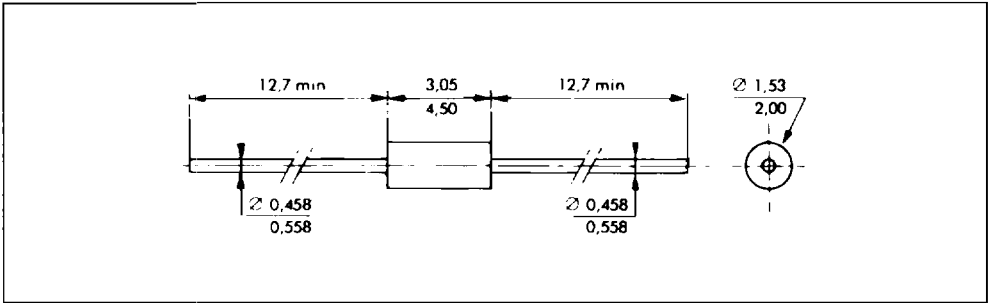
HIGH PERFORMANCE, LOW CURRENT

Types	V_{ZT}	r_{ZT}	θV_Z	I_R	Maximum Regulation			Noise Density max (μ V/ \sqrt{Hz})	Typical Parameters		
	@ 250 μ A (1) (3) (4)	@ 250 μ A	@ 250 μ A (6)	@ 80% V_Z	ΔV_Z	I_{LO}	I_{HI}		V_Z @ 10 μ A	I_R @ 50% V_Z	I_R @ 90% V_Z
	nom (V)	max (Ω)	nom (mV/ $^\circ C$)	max (μ A)	(V)	(μ A)	(mA)		(V)	(nA)	(nA)
T-LVA 450A	5.0	700	0.75	10.0	0.40	100	1.0	1	4.15	70	15000
T-LVA 453A	5.3	250	1.33	5.0	0.20	100	1.0	1	4.9	35	7000
T-LVA 456A	5.6	100	1.96	1.0	0.10	50	1.0	1	5.45	15	3000
T-LVA 459A	5.9	100	2.30	0.5	0.10	10	1.0	1	5.85	2.5	1000
T-LVA 462A	6.2	100	2.67	0.1	0.10	10	1.0	1	6.2	0.8	130
T-LVA 465A	6.5	100	3.06	0.05	0.10	10	1.0	1	6.5	0.15	25
T-LVA 468A	6.8	100	3.40	0.01	0.10	10	1.0	1	6.8	< 0.10	9.0
T-LVA 471A	7.1	175	3.76	0.01	0.10	10	1.0	1	7.1	< 0.10	5.5
T-LVA 474A	7.4	175	4.07	0.01	0.10	10	1.0	1	7.4	< 0.10	3.0
T-LVA 477A	7.7	175	4.47	0.01	0.10	10	1.0	1	7.7	< 0.10	2.5
T-LVA 480A	8.0	175	4.80	0.01	0.10	10	1.0	1	8.0	< 0.10	1.8
T-LVA 483A	8.3	175	5.15	0.01	0.10	10	1.0	1	8.3	< 0.10	1.2
T-LVA 486A	8.6	175	5.50	0.01	0.10	10	1.0	1	8.6	< 0.10	0.9
T-LVA 489A	8.9	175	5.87	0.01	0.10	10	1.0	2	8.9	< 0.10	0.6
T-LVA 492A	9.2	175	6.16	0.01	0.10	10	1.0	2	9.2	< 0.10	0.5
T-LVA 495A	9.5	175	6.46	0.01	0.10	10	1.0	2	9.5	< 0.10	0.5
T-LVA 498A	9.8	175	6.86	0.01	0.10	10	1.0	2	9.8	< 0.10	0.4

- Notes :**
1. For other voltages consult the manufacturer.
 2. Tolerance on nominal V_{ZT} : $\pm 5\%$.
 3. Tolerance on nominal V_{ZT} : $\pm 0.2V$.
 4. For other tolerances, consult the manufacturer.
 5. Measured @ DC test current with 10% AC superimposed (50Hz).
 6. Tolerance : ± 0.5 mV/ $^\circ C$, 0 to 100 $^\circ C$, to V_Z : nominal only.
 7. Noise measured at 1000Hz with a diode noise analyser "Quan-tech" model 327-Bandpass 1000Hz.

PACKAGE MECHANICAL DATA

DO 35 (Glass)



Cooling method : by convection and conduction

Marking : clear, ring at cathode end.

Weight : 0.15g