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TECHNICAL DATA SHEET

LOW VOLTAGE AVALANCHE ZENER DIODE

– LOW NOISE, LOW VOLTAGE
– DESIGNED FOR USE AT LOW CURRENT LEVELS
– METALLURGICALLY BONDED

Qualified per MIL-PRF-19500/

DEVICES

LVA43A – LVA100A
LVA343A – LVA3100A
LVA450A – LVA498A

QUALIFIED LEVELS

MAXIMUM RATING AT 25°C

Junction and Storage Temperature: -65°C to +175°C
DC Power Dissipation: 400mW @ +25°C
Power Derating: Derate linearly to zero @ 175°C

ELECTRICAL CHARACTERISTICS ***(T_A = 25°C, unless otherwise specified)***

TYPE NUMBER	Similar to JEDEC Type	Zener Voltage Nom. Vz	Test Current Izt	Maximum Dynamic Impedance Zz Note (1)	Maximum Reverse Current Ir @ Vr	Reverse Voltage Vr	Maximum Noise Density Nd @ 250µ Not3 (3)	ΔVz IzL – Izh Note (2)			Vf @ 200mA max
								ΔVz	IzL	IzH	
		Volts	mA	Ohms	µA	Volts	µV/√Hz	V	mA	IzH	
LVA43A 1/	N/A	4.3	20.0	18	4.0	1.5	4.0	1.125	2.0	20.0	1.2
LVA47A	N/A	4.7	10.0	15	4.0	1.5	4.0	0.75	1.0	10.0	1.2
LVA51A	N/A	5.1	5.0	15	0.10	2.0	4.0	0.45	0.25	5.0	1.2
LVA56A	N/A	5.6	1.0	40	0.05	3.0	4.0	0.15	0.25	1.0	1.2
LVA62A	N/A	6.2	1.0	50	0.05	4.0	4.0	0.15	0.01	1.0	1.2
LVA68A	N/A	6.8	1.0	50	0.05	5.0	4.0	0.15	0.01	1.0	1.2
LVA75A	N/A	7.5	1.0	100	0.01	6.0	4.0	0.15	0.01	1.0	1.2
LVA82A	N/A	8.2	1.0	100	0.01	6.5	4.0	0.15	0.01	1.0	1.2
LVA91A	N/A	9.1	1.0	100	0.01	8.0	4.0	0.15	0.01	1.0	1.2
LVA100A	N/A	10.0	1.0	100	0.01	9.0	4.0	0.15	0.01	1.0	1.2
LVA343A 2/	1N6082	4.3	20.0	18	5.00	1.5	4.0	0.95	2.0	20.0	1.2
LVA347A	1N6083	4.7	10.0	18	5.00	2.0	4.0	0.50	1.0	10.0	1.2
LVA351A	1N6084	5.1	5.0	18	5.00	3.0	4.0	0.50	0.25	5.0	1.2
LVA356A	1N6085	5.6	1.0	40	5.00	4.5	4.0	0.50	0.25	1.0	1.2
LVA362A	1N6086	6.2	1.0	45	2.00	5.6	4.0	0.10	0.01	1.0	1.2
LVA368A	1N6087	6.8	1.0	50	2.00	6.2	4.0	0.10	0.01	1.0	1.2
LVA375A	1N6088	7.5	1.0	50	2.00	6.8	4.0	0.10	0.01	1.0	1.2
LVA382A	1N6089	8.2	1.0	60	1.00	7.5	4.0	0.10	0.01	1.0	1.2
LVA391A	1N6090	9.1	1.0	60	1.00	8.2	4.0	0.10	0.01	1.0	1.2
LVA3100A	1N6091	10.0	1.0	60	1.00	9.1	4.0	0.10	0.01	1.0	1.2
LVA450A 3/	N/A	5.0	0.25	700	10.0	4.0	4.0	0.40	0.1	1.0	1.2
LVA453A	N/A	5.3	0.25	250	5.0	4.08	4.0	0.20	0.1	1.0	1.2
LVA456A	N/A	5.6	0.25	100	5.0	4.48	4.0	0.10	0.05	1.0	1.2
LVA459A	N/A	5.9	0.25	100	5.0	4.72	4.0	0.10	0.01	1.0	1.2
LVA462A	N/A	6.2	0.25	100	5.0	4.96	4.0	0.10	0.01	1.0	1.2
LVA465A	N/A	6.5	0.25	100	2.0	5.2	4.0	0.10	0.01	1.0	1.2
LVA468A	N/A	6.8	0.25	100	2.0	5.44	4.0	0.10	0.01	1.0	1.2
LVA471A	N/A	7.1	0.25	175	2.0	5.68	4.0	0.10	0.01	1.0	1.2
LVA474A	N/A	7.4	0.25	175	2.0	5.92	4.0	0.10	0.01	1.0	1.2
LVA477A	N/A	7.7	0.25	175	2.0	6.16	4.0	0.10	0.01	1.0	1.2
LVA480A	N/A	8.0	0.25	175	2.0	6.4	4.0	0.10	0.01	1.0	1.2
LVA483A	N/A	8.3	0.25	175	2.0	6.64	4.0	0.10	0.01	1.0	1.2
LVA486A	N/A	8.6	0.25	175	1.0	6.88	4.0	0.10	0.01	1.0	1.2
LVA489A	N/A	8.9	0.25	175	1.0	7.12	4.0	0.10	0.01	1.0	1.2
LVA492A	N/A	9.2	0.25	175	1.0	7.36	4.0	0.10	0.01	1.0	1.2
LVA495A	N/A	9.5	0.25	175	1.0	7.6	4.0	0.10	0.01	1.0	1.2
LVA498A	N/A	9.8	0.25	175	1.0	7.84	4.0	0.10	0.01	1.0	1.2

NOTE:
1/ Suffix A ± 5%, B ± 2%, C ± 1%
2/ Suffix A ± 10%, B ± 5%, C ± 2%, D ± 1%
3/ Suffix A ± 0.2V, B ± 0.15V, C ± 0.11V
Note (1): Zener impedance is derived by superimposing on Izt a 60Hz rms a.c. current equal to 10% of Izt
Note (2): ΔVz is the difference between Vz @ IzL and IzH measured with the device junction in thermal equilibrium at the ambient temperature of +25°C ±3°C
Note (3): Measured from 1000 to 3000 Hz

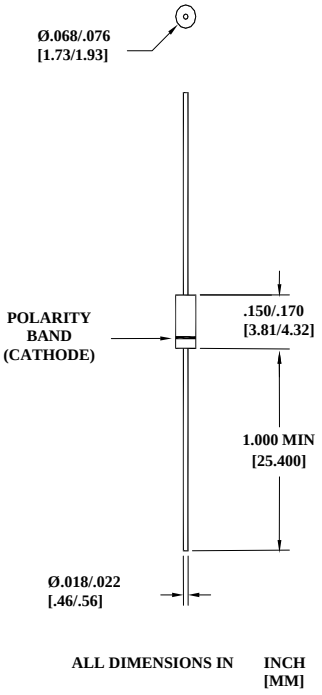

FIGURE 1

DESIGN DATA

CASE: Hermetically sealed glass case. DO-35 outline.

LEAD MATERIAL: Copper clad steel.

LEAD FINISH: Tin / Lead

THERMAL RESISTANCE: (RθJEC): 250°C/W maximum at L = .375 inch

THERMAL IMPEDANCE: (ZθJX): 35°C/W maximum

POLARITY: Diode to be operated with the banded (Cathode) en positive.

MOUNTING POSITION: Any

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TYPICAL THERMAL RESISTANCE

Qualified per MIL-PRF-19500/