

0.5W SMD Zener Diodes

Features

- Planar Die Construction
- 0.5W Power Dissipation
- Zener Voltage: 2.0V to 56V
- Ideally Suited for Automated Assembly Processes
- RoHS Compliant



MiniMelf



Mechanical Data

Case:	Molded Glass MiniMelf
Terminals:	Solderable per MIL-STD-750, Method 2026
Polarity:	Color band denotes cathode end
Weight:	Approx. 0.03 grams

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

Symbol	Description	Value	Unit	Conditions
P_{tot}	Power Dissipation at $T_a=25^{\circ}C$	500	mW	
R_{thJA}	Thermal Resistance Junction to Ambient Air	0.3	K/mW	
V_F	Forward Voltage	1	V	I _F =100mA
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-65 to +175	°C	

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TLZ2.0A - TLZ56

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

0.5W	Marking Code	Normal Zener Voltage @ IZT			Test Current	Max.Zener Impedance (Ω)			Maximum Reverse Leakage Current IR @ VR	
		Nom.	Min.	Max.		ZZT @ IZT	Zzk @ Izk	Izk(mA)	IR(μ A)	VR(V)
P/N		Vz(V)	Vz(V)	Vz(V)	IzT(mA)					
TLZ2.0A	2A0	2.0	1.88	2.10	20	140	2000	1.0	120	0.5
TLZ2.0B	2B0	2.0	2.02	2.20	20	140	2000	1.0	120	0.5
TLZ2.2A	2A2	2.2	2.12	2.30	20	120	2000	1.0	120	0.7
TLZ2.2B	2B2	2.2	2.22	2.41	20	120	2000	1.0	120	0.7
TLZ2.4A	2A4	2.4	2.33	2.52	20	100	2000	1.0	120	1.0
TLZ2.4B	2B4	2.4	2.43	2.63	20	100	2000	1.0	120	1.0
TLZ2.7A	2A7	2.7	2.54	2.75	20	100	1000	1.0	120	1.0
TLZ2.7B	2B7	2.7	2.69	2.91	20	100	1000	1.0	120	1.0
TLZ3.0A	3A0	3.0	2.85	3.07	20	80	1000	1.0	50	1.0
TLZ3.0B	3B0	3.0	3.01	3.22	20	80	1000	1.0	50	1.0
TLZ3.3A	3A3	3.3	3.16	3.38	20	70	1000	1.0	20	1.0
TLZ3.3B	3B3	3.3	3.32	3.53	20	70	1000	1.0	20	1.0
TLZ3.6A	3A6	3.6	3.46	3.70	20	60	1000	1.0	10	1.0
TLZ3.6B	3B6	3.6	3.60	3.85	20	60	1000	1.0	10	1.0
TLZ3.9A	3A9	3.9	3.74	4.01	20	50	1000	1.0	5	1.0
TLZ3.9B	3B9	3.9	3.89	4.16	20	50	1000	1.0	5	1.0
TLZ4.3A	4A3	4.3	4.04	4.29	20	40	1000	1.0	5	1.0
TLZ4.3B	4B3	4.3	4.17	4.43	20	40	1000	1.0	5	1.0
TLZ4.3C	4C3	4.3	4.30	4.57	20	40	1000	1.0	5	1.0
TLZ4.7A	4A7	4.7	4.44	4.68	20	25	900	1.0	5	1.0
TLZ4.7B	4B7	4.7	4.55	4.80	20	25	900	1.0	5	1.0
TLZ4.7C	4C7	4.7	4.68	4.93	20	25	900	1.0	5	1.0
TLZ5.1A	5A1	5.1	4.81	5.07	20	20	800	1.0	5	1.5
TLZ5.1B	5B1	5.1	4.94	5.20	20	20	800	1.0	5	1.5
TLZ5.1C	5C1	5.1	5.09	5.37	20	20	800	1.0	5	1.5
TLZ5.6A	5A6	5.6	5.28	5.55	20	13	500	1.0	5	2.5
TLZ5.6B	5B6	5.6	5.45	5.73	20	13	500	1.0	5	2.5

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		Nom.	Min.	Max.		ZZT @ IZT	Zzk @ Izk	Izk(mA)	IR(μA)	VR(V)
P/N		Vz(V)	Vz(V)	Vz(V)	IzT(mA)					
TLZ5.6C	5C6	5.6	5.61	5.91	20	13	500	1.0	5	2.5
TLZ6.2A	6A2	6.2	5.78	6.09	20	10	300	1.0	5	3.0
TLZ6.2B	6B2	6.2	5.96	6.27	20	10	300	1.0	5	3.0
TLZ6.2C	6C2	6.2	6.12	6.44	20	10	300	1.0	5	3.0
TLZ6.8A	6A8	6.8	6.29	6.63	20	8	150	0.5	2	3.5
TLZ6.8B	6B8	6.8	6.49	6.83	20	8	150	0.5	2	3.5
TLZ6.8C	6C8	6.8	6.66	7.01	20	8	150	0.5	2	3.5
TLZ7.5A	7A5	7.5	6.85	7.22	20	8	120	0.5	0.5	4.0
TLZ7.5B	7B5	7.5	7.07	7.45	20	8	120	0.5	0.5	4.0
TLZ7.5C	7C5	7.5	7.29	7.67	20	8	120	0.5	0.5	4.0
TLZ8.2A	8A2	8.2	7.53	7.92	20	8	120	0.5	0.5	5.0
TLZ8.2B	8B2	8.2	7.78	8.19	20	8	120	0.5	0.5	5.0
TLZ8.2C	8C2	8.2	8.03	8.45	20	8	120	0.5	0.5	5.0
TLZ9.1A	9A1	9.1	8.29	8.73	20	8	120	0.5	0.5	6.0
TLZ9.1B	9B1	9.1	8.57	9.01	20	8	120	0.5	0.5	6.0
TLZ9.1C	9C1	9.1	8.83	9.30	20	8	120	0.5	0.5	6.0
TLZ10A	10A	10	9.12	9.59	20	8	120	0.5	0.2	7.0
TLZ10B	10B	10	9.41	9.90	20	8	120	0.5	0.2	7.0
TLZ10C	10C	10	9.70	10.20	20	8	120	0.5	0.2	7.0
TLZ10D	10D	10	9.94	10.44	20	8	120	0.5	0.2	7.0
TLZ11A	11A	11	10.18	10.71	10	10	120	0.5	0.2	8.0
TLZ11B	11B	11	10.50	11.05	10	10	120	0.5	0.2	8.0
TLZ11C	11C	11	10.82	11.38	10	10	120	0.5	0.2	8.0
TLZ12A	12A	12	11.13	11.71	10	12	110	0.5	0.2	9.0
TLZ12B	12B	12	11.44	12.03	10	12	110	0.5	0.2	9.0
TLZ12C	12C	12	11.74	12.35	10	12	110	0.5	0.2	9.0
TLZ13A	13A	13	12.11	12.75	10	14	110	0.5	0.2	10
TLZ13B	13B	13	12.55	13.21	10	14	110	0.5	0.2	10
TLZ13C	13C	13	12.99	13.66	10	14	110	0.5	0.2	10

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		Nom.	Min.	Max.		ZZT @ IZT	Zzk @ Izk	Izk(mA)	IR(μA)	VR(V)
P/N		VZ(V)	VZ(V)	VZ(V)	IzT(mA)					
TLZ15A	15A	15	13.44	14.13	10	16	110	0.5	0.2	11
TLZ15B	15B	15	13.89	14.62	10	16	110	0.5	0.2	11
TLZ15C	15C	15	14.35	15.09	10	16	110	0.5	0.2	11
TLZ16A	16A	16	14.80	15.57	10	18	150	0.5	0.2	12
TLZ16B	16B	16	15.25	16.04	10	18	150	0.5	0.2	12
TLZ16C	16C	16	15.69	16.51	10	18	150	0.5	0.2	12
TLZ18A	18A	18	16.22	17.06	10	23	150	0.5	0.2	13
TLZ18B	18B	18	16.82	17.70	10	23	150	0.5	0.2	13
TLZ18C	18C	18	17.42	18.33	10	23	150	0.5	0.2	13
TLZ20A	20A	20	18.02	18.96	10	28	200	0.5	0.2	15
TLZ20B	20B	20	18.63	19.59	10	28	200	0.5	0.2	15
TLZ20C	20C	20	19.23	20.22	10	28	200	0.5	0.2	15
TLZ20D	20D	20	19.72	20.72	10	28	200	0.5	0.2	15
TLZ22A	22A	22	20.15	21.20	5	30	200	0.5	0.2	17
TLZ22B	22B	22	20.64	21.71	5	30	200	0.5	0.2	17
TLZ22C	22C	22	21.08	22.17	5	30	200	0.5	0.2	17
TLZ22D	22D	22	21.52	22.63	5	30	200	0.5	0.2	17
TLZ24A	24A	24	22.05	23.18	5	35	200	0.5	0.2	19
TLZ24B	24B	24	22.61	23.77	5	35	200	0.5	0.2	19
TLZ24C	24C	24	23.12	24.31	5	35	200	0.5	0.2	19
TLZ24D	24D	24	23.63	24.85	5	35	200	0.5	0.2	19
TLZ27A	27A	27	24.26	25.52	5	45	250	0.5	0.2	21
TLZ27B	27B	27	24.97	26.26	5	45	250	0.5	0.2	21
TLZ27C	27C	27	25.63	26.95	5	45	250	0.5	0.2	21
TLZ27D	27D	27	26.29	27.64	5	45	250	0.5	0.2	21
TLZ30A	30A	30	26.99	28.39	5	55	250	0.5	0.2	23
TLZ30B	30B	30	27.70	29.13	5	55	250	0.5	0.2	23
TLZ30C	30C	30	28.36	29.82	5	55	250	0.5	0.2	23
TLZ30D	30D	30	29.02	30.51	5	55	250	0.5	0.2	23

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		Nom.	Min.	Max.		ZZT @ IZT	Zzk @ Izk	Izk(mA)	IR(μA)	VR(V)
P/N		VZ(V)	VZ(V)	VZ(V)	IzT(mA)					
TLZ33A	33A	33	29.68	31.22	5	65	250	0.5	0.2	25
TLZ33B	33B	33	30.32	31.88	5	65	250	0.5	0.2	25
TLZ33C	33C	33	30.90	32.50	5	65	250	0.5	0.2	25
TLZ33D	33D	33	31.49	33.11	5	65	250	0.5	0.2	25
TLZ36A	36A	36	32.14	33.79	5	75	250	0.5	0.2	27
TLZ36B	36B	36	32.79	34.49	5	75	250	0.5	0.2	27
TLZ36C	36C	36	33.40	35.13	5	75	250	0.5	0.2	27
TLZ36D	36D	36	34.01	35.77	5	75	250	0.5	0.2	27
TLZ39A	39A	39	34.68	36.47	5	85	250	0.5	0.2	30
TLZ39B	39B	39	35.36	37.19	5	85	250	0.5	0.2	30
TLZ39C	39C	39	36.00	37.85	5	85	250	0.5	0.2	30
TLZ39D	39D	39	36.63	38.52	5	85	250	0.5	0.2	30
TLZ43	43	43	40.00	45.00	5	90	-	-	0.2	33
TLZ47	47	47	44.00	49.00	5	90	-	-	0.2	36
TLZ51	51	51	48.00	54.00	5	110	-	-	0.2	39
TLZ56	56	56	53.00	60.00	5	110	-	-	0.2	43

Typical Characteristics Curves

Fig.1-Power Derating Curve

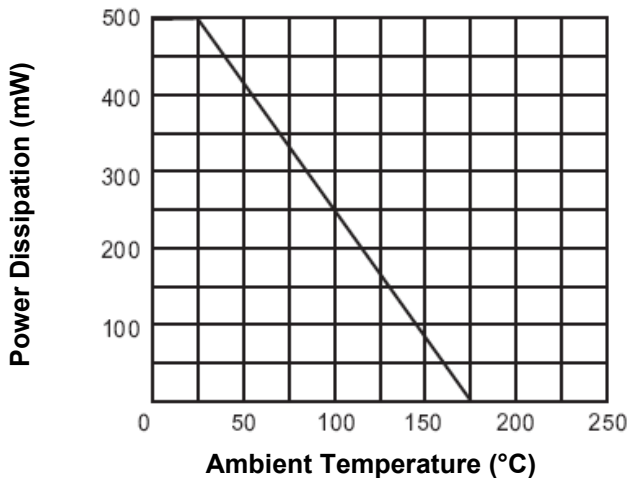
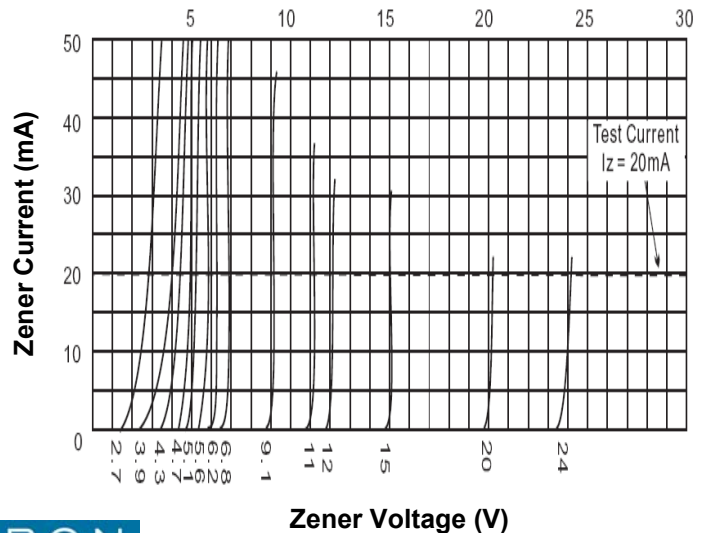


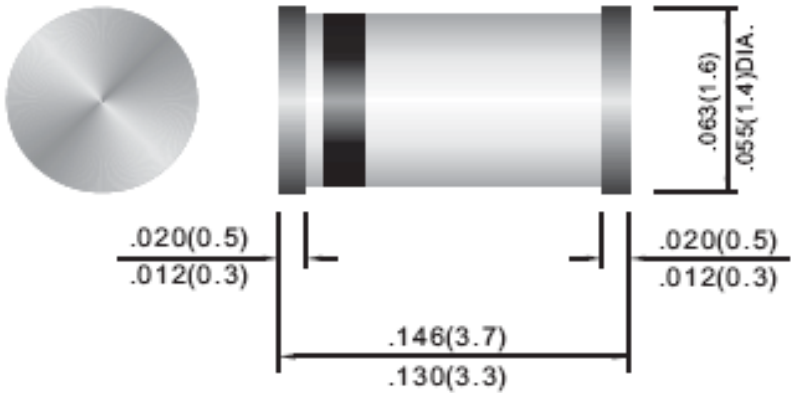
Fig.2- Breakdown Characteristics



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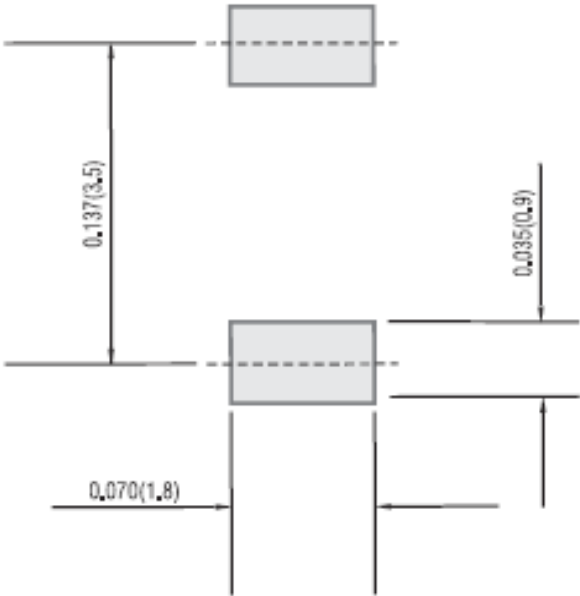
TLZ2.0A - TLZ56

Dimensions in inch (mm)



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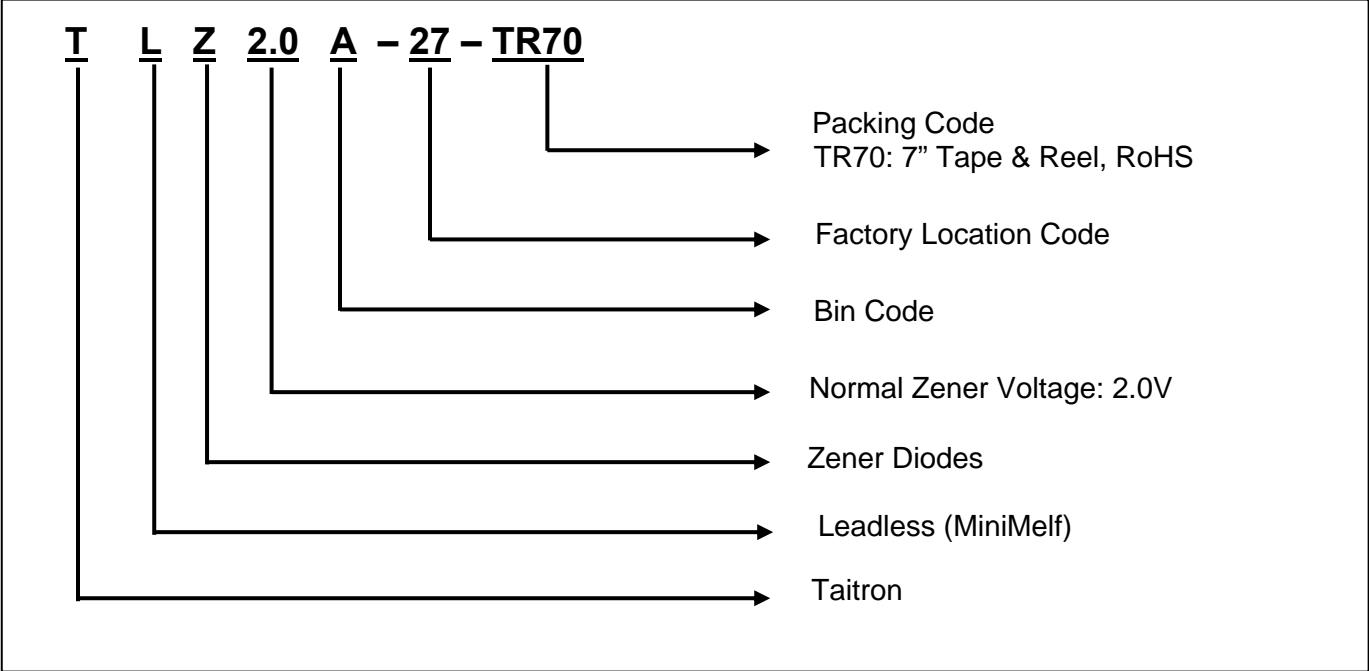
Mounting Pad Layout in inch (mm)



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TLZ2.0A - TLZ56

How to Order



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