

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	
V_F	Forward Voltage	1	V	$I_F=100mA$
R_{thJA}	Thermal Resistance Junction to Ambient Air	0.3	K/mW	
T_J	Junction Temperature	175	$^{\circ}C$	
T_{STG}	Storage Temperature Range	-65 to +175	$^{\circ}C$	

Note: Valid provided that leads at a distance of 10mm from case are kept at ambient temperature.

0.5W SMD Zener Diodes

TLZJ2.0A - TLZJ56

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

0.5W	Marking Code	Normal Zener Voltage @ I _{ZT}			Test Current	Max.Zener Impedance (Ω)			Maximum Reverse Leakage Current I _R @ V _R	
		Nom.	Min.	Max.		Z _{ZT} @ I _{ZT}	Z _{Zk} @ I _{Zk}	I _{Zk} (mA)	I _R (μA)	V _R (V)
P/N		V _Z (V)	V _Z (V)	V _Z (V)	I _{ZT} (mA)					
TLZJ2.0A	Z2A0	2.0	1.88	2.10	5	100	1000	0.5	120	0.5
TLZJ2.0B	Z2B0	2.0	2.02	2.20	5	100	1000	0.5	120	0.5
TLZJ2.2A	Z2A2	2.2	2.12	2.30	5	100	1000	0.5	100	0.7
TLZJ2.2B	Z2B2	2.2	2.22	2.41	5	100	1000	0.5	100	0.7
TLZJ2.4A	Z2A4	2.4	2.33	2.52	5	100	1000	0.5	120	1.0
TLZJ2.4B	Z2B4	2.4	2.43	2.63	5	100	1000	0.5	120	1.0
TLZJ2.7A	Z2A7	2.7	2.54	2.75	5	110	1000	0.5	100	1.0
TLZJ2.7B	Z2B7	2.7	2.69	2.91	5	110	1000	0.5	100	1.0
TLZJ3.0A	Z3A0	3.0	2.85	3.07	5	120	1000	0.5	50	1.0
TLZJ3.0B	Z3B0	3.0	3.01	3.22	5	120	1000	0.5	50	1.0
TLZJ3.3A	Z3A3	3.3	3.16	3.38	5	120	1000	0.5	20	1.0
TLZJ3.3B	Z3B3	3.3	3.32	3.53	5	120	1000	0.5	20	1.0
TLZJ3.6A	Z3A6	3.6	3.46	3.69	5	100	1000	1.0	10	1.0
TLZJ3.6B	Z3B6	3.6	3.60	3.84	5	100	1000	1.0	10	1.0
TLZJ3.9A	Z3A9	3.9	3.74	4.01	5	100	1000	1.0	5	1.0
TLZJ3.9B	Z3B9	3.9	3.89	4.16	5	100	1000	1.0	5	1.0
TLZJ4.3A	Z4A3	4.3	4.04	4.29	5	100	1000	1.0	5	1.0
TLZJ4.3B	Z4B3	4.3	4.17	4.43	5	100	1000	1.0	5	1.0
TLZJ4.3C	Z4C3	4.3	4.30	4.57	5	100	1000	1.0	5	1.0
TLZJ4.7A	Z4A7	4.7	4.44	4.68	5	90	900	1.0	5	1.0
TLZJ4.7B	Z4B7	4.7	4.55	4.80	5	90	900	1.0	5	1.0
TLZJ4.7C	Z4C7	4.7	4.68	4.93	5	90	900	1.0	5	1.0
TLZJ5.1A	Z5A1	5.1	4.81	5.07	5	80	800	1.0	5	1.5
TLZJ5.1B	Z5B1	5.1	4.94	5.20	5	80	800	1.0	5	1.5
TLZJ5.1C	Z5C1	5.1	5.09	5.37	5	80	800	1.0	5	1.5
TLZJ5.6A	Z5A6	5.6	5.28	5.55	5	60	500	1.0	5	2.5
TLZJ5.6B	Z5B6	5.6	5.45	5.73	5	60	500	1.0	5	2.5

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TLZJ2.0A - TLZJ56

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(μA)	VR(V)
P/N		Vz(V)	Vz(V)	Vz(V)	IzT(mA)					
TLZJ5.6C	Z5C6	5.6	5.61	5.91	5	60	500	1.0	5	2.5
TLZJ6.2A	Z6A2	6.2	5.78	6.09	5	60	300	1.0	5	3.0
TLZJ6.2B	Z6B2	6.2	5.96	6.27	5	60	300	1.0	5	3.0
TLZJ6.2C	Z6C2	6.2	6.12	6.44	5	60	300	1.0	5	3.0
TLZJ6.8A	Z6A8	6.8	6.29	6.63	5	20	150	0.5	2	3.5
TLZJ6.8B	Z6B8	6.8	6.49	6.83	5	20	150	0.5	2	3.5
TLZJ6.8C	Z6C8	6.8	6.66	7.01	5	20	150	0.5	2	3.5
TLZJ7.5A	Z7A5	7.5	6.85	7.22	5	20	120	0.5	0.5	4.0
TLZJ7.5B	Z7B5	7.5	7.07	7.45	5	20	120	0.5	0.5	4.0
TLZJ7.5C	Z7C5	7.5	7.29	7.67	5	20	120	0.5	0.5	4.0
TLZJ8.2A	Z8A2	8.2	7.53	7.92	5	20	120	0.5	0.5	5.0
TLZJ8.2B	Z8B2	8.2	7.78	8.19	5	20	120	0.5	0.5	5.0
TLZJ8.2C	Z8C2	8.2	8.03	8.45	5	20	120	0.5	0.5	5.0
TLZJ9.1A	Z9A1	9.1	8.29	8.73	5	25	120	0.5	0.5	6.0
TLZJ9.1B	Z9B1	9.1	8.57	9.01	5	25	120	0.5	0.5	6.0
TLZJ9.1C	Z9C1	9.1	8.83	9.30	5	25	120	0.5	0.5	6.0
TLZJ10A	Z10A	10	9.12	9.59	5	30	120	0.5	0.2	7.0
TLZJ10B	Z10B	10	9.41	9.90	5	30	120	0.5	0.2	7.0
TLZJ10C	Z10C	10	9.70	10.20	5	30	120	0.5	0.2	7.0
TLZJ10D	Z10D	10	9.94	10.44	5	30	120	0.5	0.2	7.0
TLZJ11A	Z11A	11	10.18	10.71	5	30	120	0.5	0.2	8.0
TLZJ11B	Z11B	11	10.50	11.05	5	30	120	0.5	0.2	8.0
TLZJ11C	Z11C	11	10.82	11.38	5	30	120	0.5	0.2	8.0
TLZJ12A	Z12A	12	11.13	11.71	5	30	110	0.5	0.2	9.0
TLZJ12B	Z12B	12	11.44	12.03	5	30	110	0.5	0.2	9.0
TLZJ12C	Z12C	12	11.74	12.35	5	30	110	0.5	0.2	9.0
TLZJ13A	Z13A	13	12.11	12.75	5	35	110	0.5	0.2	10
TLZJ13B	Z13B	13	12.55	13.21	5	35	110	0.5	0.2	10
TLZJ13C	Z13C	13	12.99	13.66	5	35	110	0.5	0.2	10

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TLZJ2.0A - TLZJ56

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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)					
TLZJ15A	Z15A	15	13.44	14.13	5	40	110	0.5	0.2	11
TLZJ15B	Z15B	15	13.89	14.62	5	40	110	0.5	0.2	11
TLZJ15C	Z15C	15	14.35	15.09	5	40	110	0.5	0.2	11
TLZJ16A	Z16A	16	14.80	15.57	5	40	150	0.5	0.2	12
TLZJ16B	Z16B	16	15.25	16.04	5	40	150	0.5	0.2	12
TLZJ16C	Z16C	16	15.69	16.51	5	40	150	0.5	0.2	12
TLZJ18A	Z18A	18	16.22	17.06	5	45	150	0.5	0.2	13
TLZJ18B	Z18B	18	16.82	17.70	5	45	150	0.5	0.2	13
TLZJ18C	Z18C	18	17.42	18.33	5	45	150	0.5	0.2	13
TLZJ20A	Z20A	20	18.02	18.96	5	55	200	0.5	0.2	15
TLZJ20B	Z20B	20	18.63	19.59	5	55	200	0.5	0.2	15
TLZJ20C	Z20C	20	19.23	20.22	5	55	200	0.5	0.2	15
TLZJ20D	Z20D	20	19.72	20.72	5	55	200	0.5	0.2	15
TLZJ22A	Z22A	22	20.15	21.20	5	30	200	0.5	0.2	17
TLZJ22B	Z22B	22	20.64	21.71	5	30	200	0.5	0.2	17
TLZJ22C	Z22C	22	21.08	22.17	5	30	200	0.5	0.2	17
TLZJ22D	Z22D	22	21.52	22.63	5	30	200	0.5	0.2	17
TLZJ24A	Z24A	24	22.05	23.18	5	35	200	0.5	0.2	19
TLZJ24B	Z24B	24	22.61	23.77	5	35	200	0.5	0.2	19
TLZJ24C	Z24C	24	23.12	24.31	5	35	200	0.5	0.2	19
TLZJ24D	Z24D	24	23.63	24.85	5	35	200	0.5	0.2	19
TLZJ27A	Z27A	27	24.26	25.52	5	45	250	0.5	0.2	21
TLZJ27B	Z27B	27	24.97	26.26	5	45	250	0.5	0.2	21
TLZJ27C	Z27C	27	25.63	26.95	5	45	250	0.5	0.2	21
TLZJ27D	Z27D	27	26.29	27.64	5	45	250	0.5	0.2	21
TLZJ30A	Z30A	30	26.99	28.39	5	55	250	0.5	0.2	23
TLZJ30B	Z30B	30	27.70	29.13	5	55	250	0.5	0.2	23
TLZJ30C	Z30C	30	28.36	29.82	5	55	250	0.5	0.2	23
TLZJ30D	Z30D	30	29.02	30.51	5	55	250	0.5	0.2	23

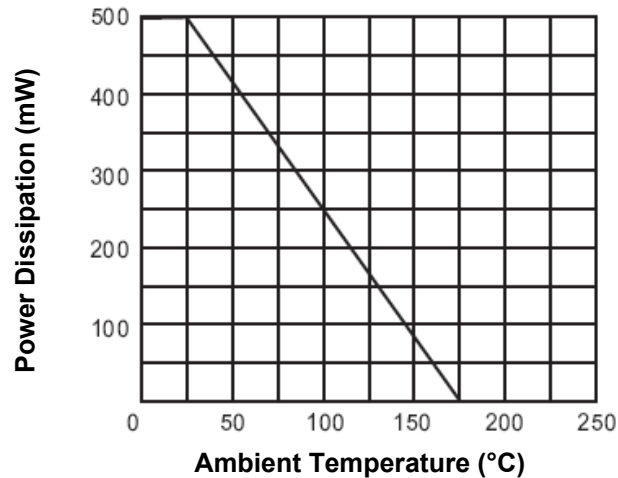
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TLZJ2.0A - TLZJ56

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(μA)	VR(V)
P/N		Vz(V)	Vz(V)	Vz(V)	IZT(mA)					
TLZJ33A	Z33A	33	29.68	31.22	5	65	250	0.5	0.2	25
TLZJ33B	Z33B	33	30.32	31.88	5	65	250	0.5	0.2	25
TLZJ33C	Z33C	33	30.90	32.50	5	65	250	0.5	0.2	25
TLZJ33D	Z33D	33	31.49	33.11	5	65	250	0.5	0.2	25
TLZJ36A	Z36A	36	32.14	33.79	5	75	250	0.5	0.2	27
TLZJ36B	Z36B	36	32.79	34.49	5	75	250	0.5	0.2	27
TLZJ36C	Z36C	36	33.40	35.13	5	75	250	0.5	0.2	27
TLZJ36D	Z36D	36	34.01	35.77	5	75	250	0.5	0.2	27
TLZJ39A	Z39A	39	34.68	36.47	5	85	250	0.5	0.2	30
TLZJ39B	Z39B	39	35.36	37.19	5	85	250	0.5	0.2	30
TLZJ39C	Z39C	39	36.00	37.85	5	85	250	0.5	0.2	30
TLZJ39D	Z39D	39	36.63	38.52	5	85	250	0.5	0.2	30
TLZJ43	Z43	43	40.00	45.00	5	90	-	-	0.2	33
TLZJ47	Z47	47	44.00	49.00	5	90	-	-	0.2	36
TLZJ51	Z51	51	48.00	54.00	5	110	-	-	0.2	39
TLZJ56	Z56	56	53.00	60.00	5	110	-	-	0.2	43

Typical Characteristics Curves

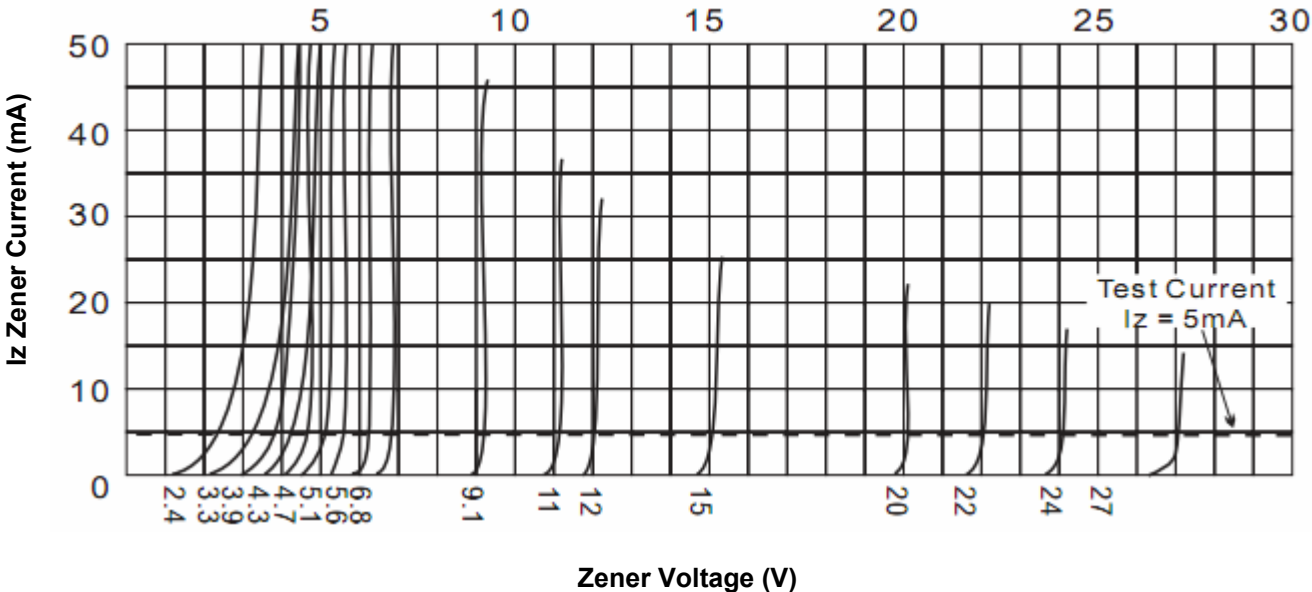
Fig.1-Power Derating Curve



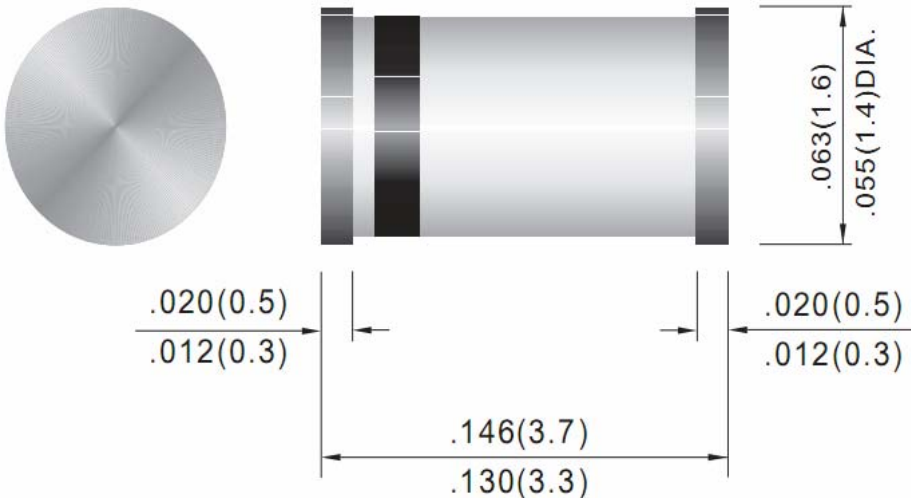
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TLZJ2.0A - TLZJ56

Fig.2 Breakdown Characteristics

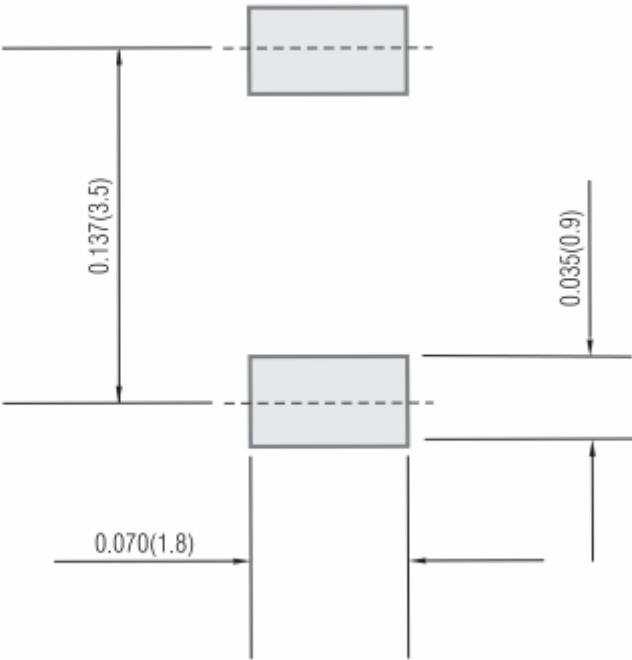


Dimensions in inch (mm)

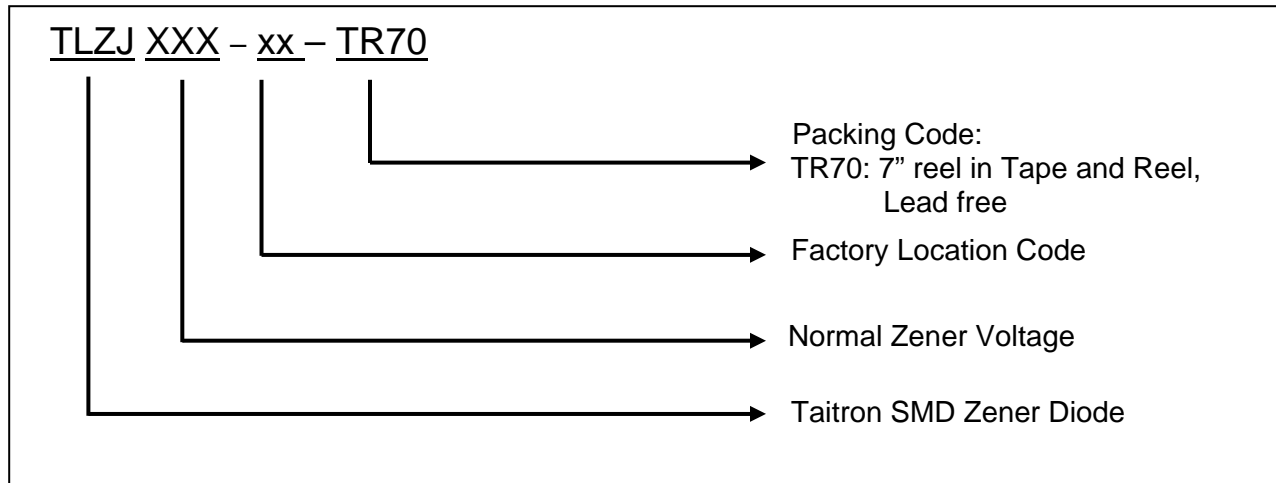


MiniMelf

Mounting Pad Layout in inch (mm)



Ordering Information



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