

## 0.5W SMD Zener Diodes

### Features

- Planar Die Construction
- 0.5W Power Dissipation
- Zener Voltage: 2.4V to 68V
- Ideally Suited for Automated Assembly Processes
- RoHS Compliant



**Micro-Melf**



### Mechanical Data

<b>Case:</b>	Molded Glass Micro-Melf
<b>Terminals:</b>	Solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode end
<b>Weight:</b>	Approx. 0.01 grams

### Maximum Ratings *(T<sub>Ambient</sub>=25°C unless noted otherwise)*

Symbol	Description	Value	Unit	Conditions
<b>P<sub>tot</sub></b>	Power Dissipation at T <sub>a</sub> =25°C	500	mW	
<b>V<sub>F</sub></b>	Forward Voltage	1	V	I <sub>F</sub> =200mA
<b>R<sub>thJA</sub></b>	Thermal Resistance Junction to Ambient Air	0.3	°C/mW	
<b>T<sub>J</sub></b>	Junction Temperature	175	°C	
<b>T<sub>STG</sub></b>	Storage Temperature Range	-65 to +175	°C	

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

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## TMZ5221B-TMZ5266B

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

0.5W	Normal Zener Voltage @ IZT			Test Current	Max. Zener Impedance ( $\Omega$ )			Maximum Reverse Leakage Current IR @ VR	
	Nom.	Min.	Max.		ZzT @IZT	Zzk @Izk	Izk(mA)	IR( $\mu$ A)	VR(V)
P/N	Vz(V)	Vz(V)	Vz(V)	IzT(mA)	ZzT @IZT	Zzk @Izk	Izk(mA)	IR( $\mu$ A)	VR(V)
TMZ5221B	2.4	2.28	2.52	20.0	30.0	1200	0.25	100	1.0
TMZ5222B	2.5	2.38	2.63	20.0	30.0	1250	0.25	100	1.0
TMZ5223B	2.7	2.57	2.84	20.0	30.0	1300	0.25	75	1.0
TMZ5224B	2.8	2.66	2.94	20.0	30.0	1400	0.25	75	1.0
TMZ5225B	3.0	2.85	3.15	20.0	29.0	1600	0.25	50	1.0
TMZ5226B	3.3	3.14	3.47	20.0	28.0	1600	0.25	25	1.0
TMZ5227B	3.6	3.42	3.78	20.0	24.0	1700	0.25	15	1.0
TMZ5228B	3.9	3.71	4.10	20.0	23.0	1900	0.25	10	1.0
TMZ5229B	4.3	4.09	4.52	20.0	22.0	2000	0.25	5.0	1.0
TMZ5230B	4.7	4.47	4.94	20.0	19.0	1900	0.25	5.0	2.0
TMZ5231B	5.1	4.85	5.36	20.0	17.0	1600	0.25	5.0	2.0
TMZ5232B	5.6	5.32	5.88	20.0	11.0	1600	0.25	5.0	3.0
TMZ5233B	6.0	5.70	6.30	20.0	7.0	1600	0.25	5.0	3.5
TMZ5234B	6.2	5.89	6.51	20.0	7.0	1000	0.25	5.0	4.0
TMZ5235B	6.8	6.46	7.14	20.0	5.0	750	0.25	3.0	5.0
TMZ5236B	7.5	7.13	7.88	20.0	6.0	500	0.25	3.0	6.0
TMZ5237B	8.2	7.79	8.61	20.0	8.0	500	0.25	3.0	6.5
TMZ5238B	8.7	8.27	9.14	20.0	8.0	600	0.25	3.0	6.5
TMZ5239B	9.1	8.65	9.56	20.0	10.0	600	0.25	3.0	7.0
TMZ5240B	10	9.50	10.50	20.0	17.0	600	0.25	3.0	8.0
TMZ5241B	11	10.45	11.55	20.0	22.0	600	0.25	2.0	8.4
TMZ5242B	12	11.40	12.60	20.0	30.0	600	0.25	1.0	9.1
TMZ5243B	13	12.35	13.65	9.5	13.0	600	0.25	0.5	9.9
TMZ5244B	14	13.30	14.70	9.0	15.0	600	0.25	0.1	10.0
TMZ5245B	15	14.25	15.75	8.5	16.0	600	0.25	0.1	11.0
TMZ5246B	16	15.20	16.80	7.8	17.0	600	0.25	0.1	12.0
TMZ5247B	17	16.15	17.85	7.4	19.0	600	0.25	0.1	13.0
TMZ5248B	18	17.10	18.90	7.0	21.0	600	0.25	0.1	14.0
TMZ5249B	19	18.05	19.95	6.6	23.0	600	0.25	0.1	14.0
TMZ5250B	20	19.00	21.00	6.2	25.0	600	0.25	0.1	15.0
TMZ5251B	22	20.90	23.10	5.6	29.0	600	0.25	0.1	17.0
TMZ5252B	24	22.80	25.20	5.2	33.0	600	0.25	0.1	18.0
TMZ5253B	25	23.75	26.25	5.0	35.0	600	0.25	0.1	19.0
TMZ5254B	27	25.65	28.35	4.6	41.0	600	0.25	0.1	21.0

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## TMZ5221B-TMZ5266B

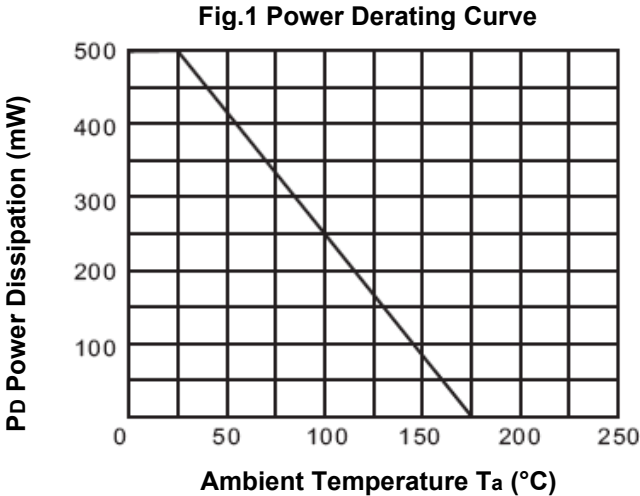
0.5W	Normal Zener Voltage @ IZT			Test Current	Max. Zener Impedance (Ω)			Maximum Reverse Leakage Current IR @ VR	
	Nom.	Min.	Max.		ZZT @IZT	Zzk @ Izk	Izk(mA)	IR(μA)	VR(V)
P/N	Vz(V)	Vz(V)	Vz(V)	IZT(mA)	ZZT @IZT	Zzk @ Izk	Izk(mA)	IR(μA)	VR(V)
TMZ5255B	28	26.60	29.40	4.5	44.0	600	0.25	0.1	21.0
TMZ5256B	30	28.50	31.50	4.2	49.0	600	0.25	0.1	23.0
TMZ5257B	33	31.35	34.65	3.8	58.0	700	0.25	0.1	25.0
TMZ5258B	36	34.20	37.80	3.4	70.0	700	0.25	0.1	27.0
TMZ5259B	39	37.05	40.95	3.2	80.0	800	0.25	0.1	30.0
TMZ5260B	43	40.85	45.15	3.0	93.0	900	0.25	0.1	33.0
TMZ5261B	47	44.65	49.35	2.7	150.0	1000	0.25	0.1	36.0
TMZ5262B	51	48.45	53.55	2.5	125.0	1100	0.25	0.1	39.0
TMZ5263B	56	53.20	58.80	2.2	150.0	1300	0.25	0.1	43.0
TMZ5264B	60	57.00	63.00	2.1	170.0	1400	0.25	0.1	46.0
TMZ5265B	62	58.90	65.10	2.0	185.0	1400	0.25	0.1	47.0
TMZ5266B	68	64.60	71.40	1.8	230.0	1600	0.25	0.1	52.0

**Notes**

Standard voltage tolerance is ±5% and:

- Suffix "A" for ±3%
- Suffix "B" for ±5%
- Suffix "C" for ±10%
- Suffix "D" for ±20%

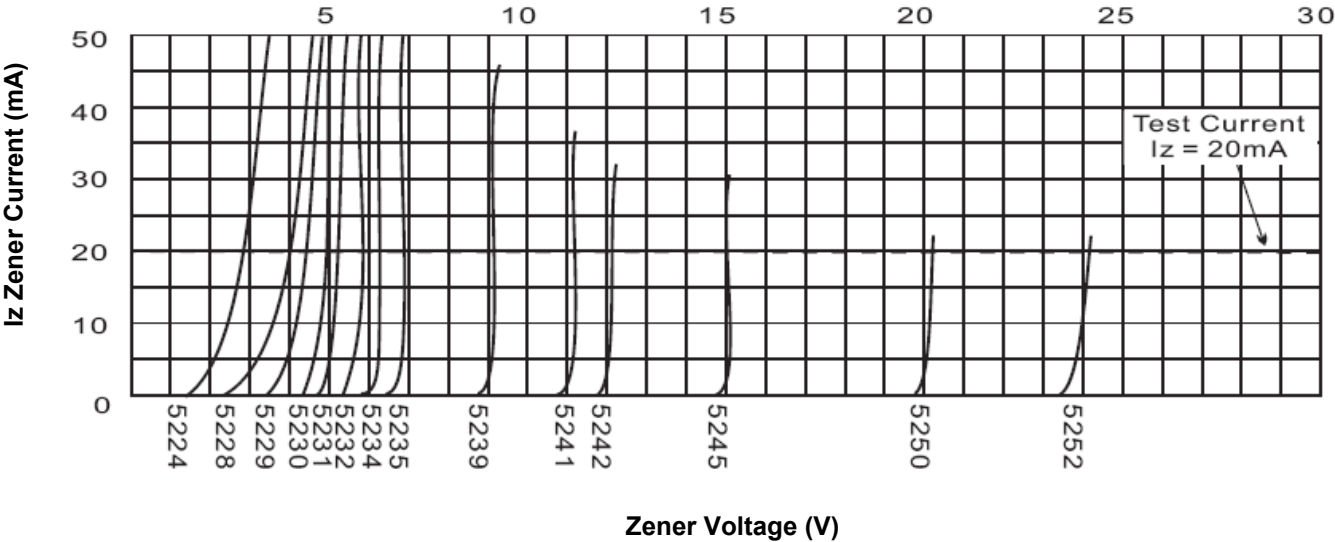
### Typical Characteristics Curves



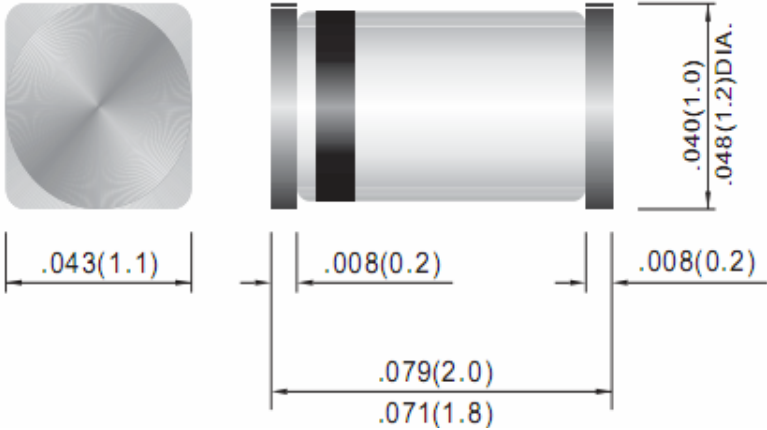
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## TMZ5221B-TMZ5266B

Fig.2 Breakdown Characteristics



### Dimensions in inch (mm)

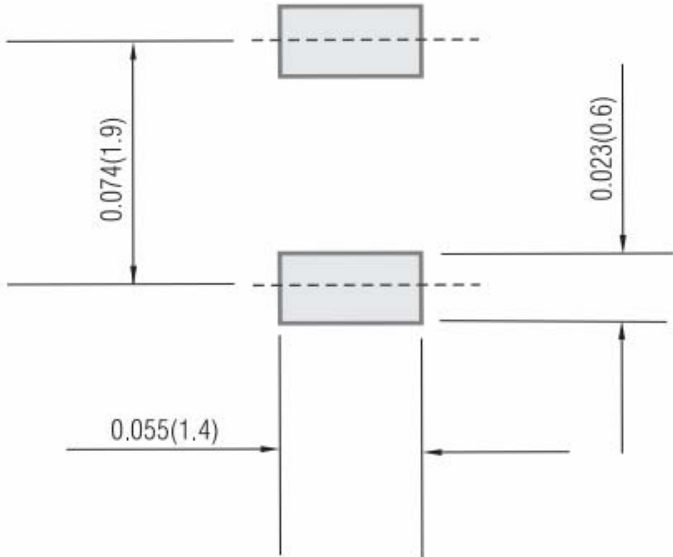


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## TMZ5221B-TMZ5266B

### Mounting Pad Layout in inch (mm)



### Ordering Information

TMZ 5221 B - xx - TR70

- Packing Code: TR70: 7" reel in Tape and Reel, RoHS
- Factory Location Code
- Standard Zener Voltage Tolerance is  $\pm 5\%$
- Series Part Number
- Taitron SMD Zener Diode

## 0.5W SMD Zener Diodes

### TMZ5221B-TMZ5266B

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