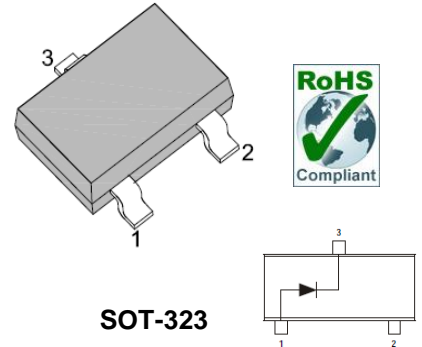


## 200mW Surface Mount Zener Diodes

### Features

- Planar Die construction
- 200mW Power Dissipation
- Standard Zener Voltage Tolerance is  $\pm 5\%$
- Ideally Suited for Automated Assembly Processes
- RoHS compliant



SOT-323

### Mechanical Data

<b>Case:</b>	SOT-323, Molded Plastic
<b>Terminals:</b>	Solderable per MIL-STD-750, Method 2026
<b>Weight:</b>	0.005 grams

### Maximum Ratings & Electrical Characteristics

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

Symbol	Description	Value	Unit	Conditions
PD	Power Dissipation	200	mW	Mounted on 100cm <sup>2</sup> (1mm thickness) copper areas
TJ	Max. Junction Temperature	150	° C	
TSTG	Storage Temperature Range	-55 to +150	° C	

# 200mW Surface Mount Zener Diodes

## MMBZ5221BWS-MMBZ5262BWS

P/N	Marking Code	Normal Zener Voltage				Max. Zener impedance			Max. reverse leakage current	
		VZ @ IZT				ZZT @ IZT	Zzk @ Izk		ID @ VR	
		Nom. (V)	Min. (V)	Max. (V)	IZT (mA)	Ω	Ω	mA	μA	VR (V)
MMBZ5221BWS	C1	2.4	2.28	2.52	20.0	30.0	1200	0.25	100.0	1.0
MMBZ5222BWS	C2	2.5	2.38	2.63	20.0	30.0	1250	0.25	100.0	1.0
MMBZ5223BWS	C3	2.7	2.57	2.84	20.0	30.0	1300	0.25	75.0	1.0
MMBZ5224BWS	C4	2.8	2.66	2.94	20.0	30.0	1400	0.25	75.0	1.0
MMBZ5225BWS	C5	3.0	2.85	3.15	20.0	30.0	1600	0.25	50.0	1.0
MMBZ5226BWS	D1	3.3	3.14	3.47	20.0	28.0	1600	0.25	25.0	1.0
MMBZ5227BWS	D2	3.6	3.42	3.78	20.0	24.0	1700	0.25	15.0	1.0
MMBZ5228BWS	D3	3.9	3.71	4.10	20.0	23.0	1900	0.25	10.0	1.0
MMBZ5229BWS	D4	4.3	4.09	4.52	20.0	22.0	2000	0.25	5.0	1.0
MMBZ5230BWS	D5	4.7	4.47	4.94	20.0	19.0	1900	0.25	5.0	2.0
MMBZ5231BWS	E1	5.1	4.85	5.36	20.0	17.0	1600	0.25	5.0	2.0
MMBZ5232BWS	E2	5.6	5.32	5.88	20.0	11.0	1600	0.25	5.0	3.0
MMBZ5233BWS	E3	6.0	5.70	6.30	20.0	7.0	1600	0.25	5.0	3.5
MMBZ5234BWS	E4	6.2	5.89	6.51	20.0	7.0	1000	0.25	5.0	4.0
MMBZ5235BWS	E5	6.8	6.46	7.14	20.0	5.0	750	0.25	3.0	5.0
MMBZ5236BWS	F1	7.5	7.13	7.88	20.0	6.0	500	0.25	3.0	6.0
MMBZ5237BWS	F2	8.2	7.79	8.61	20.0	8.0	500	0.25	3.0	6.0
MMBZ5238BWS	F3	8.7	8.27	9.14	20.0	8.0	600	0.25	3.0	6.5
MMBZ5239BWS	F4	9.1	8.65	9.56	20.0	10.0	600	0.25	3.0	6.5
MMBZ5240BWS	F5	10	9.50	10.50	20.0	17.0	600	0.25	3.0	8.0
MMBZ5241BWS	H1	11	10.45	11.55	20.0	22.0	600	0.25	2.0	8.4
MMBZ5242BWS	H2	12	11.40	12.60	20.0	30.0	600	0.25	1.0	9.1
MMBZ5243BWS	H3	13	12.35	13.65	9.5	13.0	600	0.25	0.5	9.9
MMBZ5244BWS	H4	14	13.30	14.70	9.0	15.0	600	0.25	0.1	10.5
MMBZ5245BWS	H5	15	14.25	15.75	8.5	16.0	600	0.25	0.1	11.0
MMBZ5246BWS	J1	16	15.20	16.80	7.8	17.0	600	0.25	0.1	12.0
MMBZ5247BWS	J2	17	16.15	17.85	7.5	19.0	600	0.25	0.1	13.0
MMBZ5248BWS	J3	18	17.10	18.90	7.0	21.0	600	0.25	0.1	14.0
MMBZ5249BWS	J4	19	18.05	19.95	6.6	23.0	600	0.25	0.1	14.0
MMBZ5250BWS	J5	20	19.00	21.00	6.2	25.0	600	0.25	0.1	15.0
MMBZ5251BWS	K1	22	20.90	23.10	5.6	29.0	600	0.25	0.1	17.0
MMBZ5252BWS	K2	24	22.80	25.20	5.2	33.0	600	0.25	0.1	18.0
MMBZ5253BWS	K3	25	23.75	26.25	5.0	35.0	600	0.25	0.1	19.0
MMBZ5254BWS	K4	27	25.65	28.35	5.0	41.0	600	0.25	0.1	21.0
MMBZ5255BWS	K5	28	26.60	29.40	4.5	44.0	600	0.25	0.1	21.0
MMBZ5256BWS	M1	30	28.50	31.50	4.2	49.0	600	0.25	0.1	23.0

# 200mW Surface Mount Zener Diodes

## MMBZ5221BWS-MMBZ5262BWS

P/N	Marking Code	Normal Zener Voltage				Max. Zener impedance			Max. reverse leakage current	
		VZ @ IZT				ZZT @ IZT	Zzk @ Izk		ID @ VR	
		Nom. (V)	Min. (V)	Max. (V)	IZT (mA)	$\Omega$	$\Omega$	mA	$\mu$ A	VR (V)
MMBZ5257BWS	M2	33	31.35	34.65	3.8	58.0	700	0.25	0.1	25.0
MMBZ5258BWS	M3	36	34.20	37.80	3.4	70.0	700	0.25	0.1	27.0
MMBZ5259BWS	M4	39	37.05	40.95	3.2	80.0	800	0.25	0.1	30.0
MMBZ5260BWS	M5	43	40.85	45.15	3.0	93.0	900	0.25	0.1	33.0
MMBZ5261BWS	N1	47	44.65	49.35	2.7	105.0	1000	0.25	0.1	36.0
MMBZ5262BWS	N2	51	48.45	53.55	2.5	125.0	1100	0.25	0.1	39.0

### Characteristics Curves

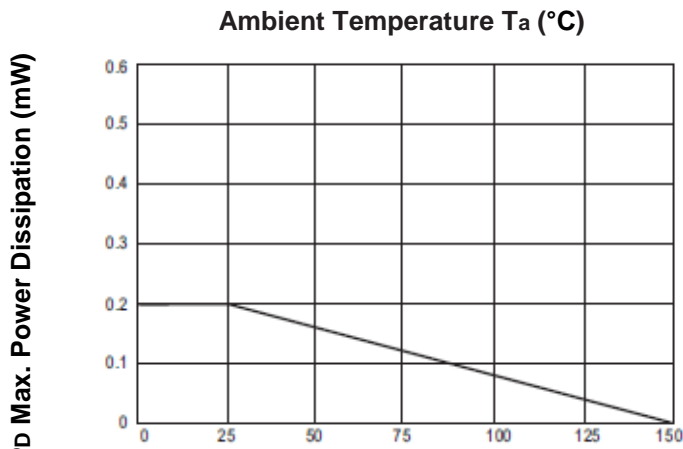


Fig.1 Power Derating Curve

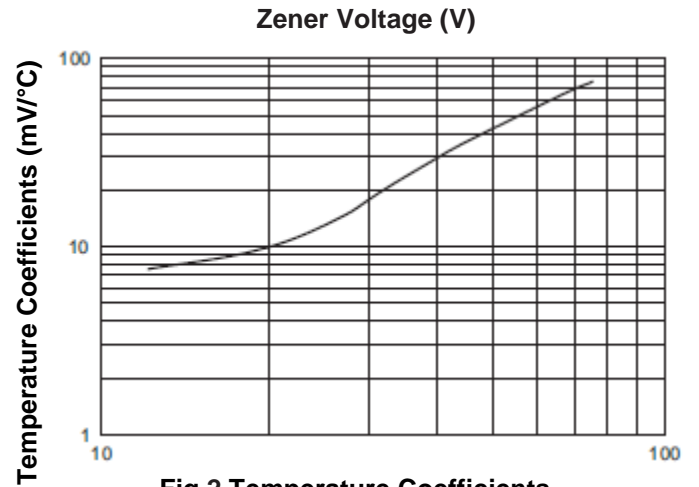


Fig.2 Temperature Coefficients

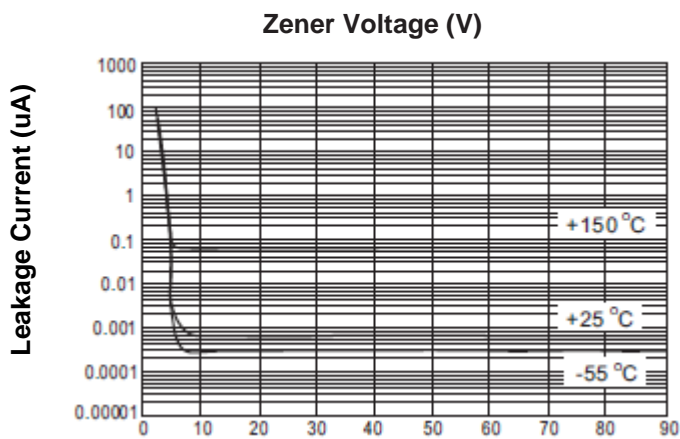


Fig.3 Typical Leakage Current

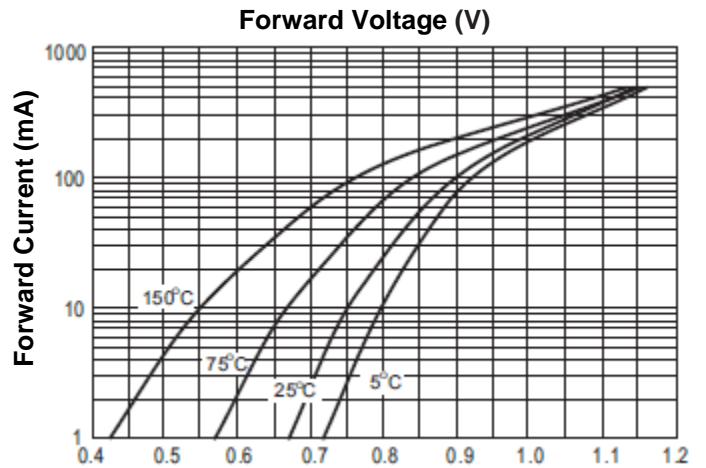


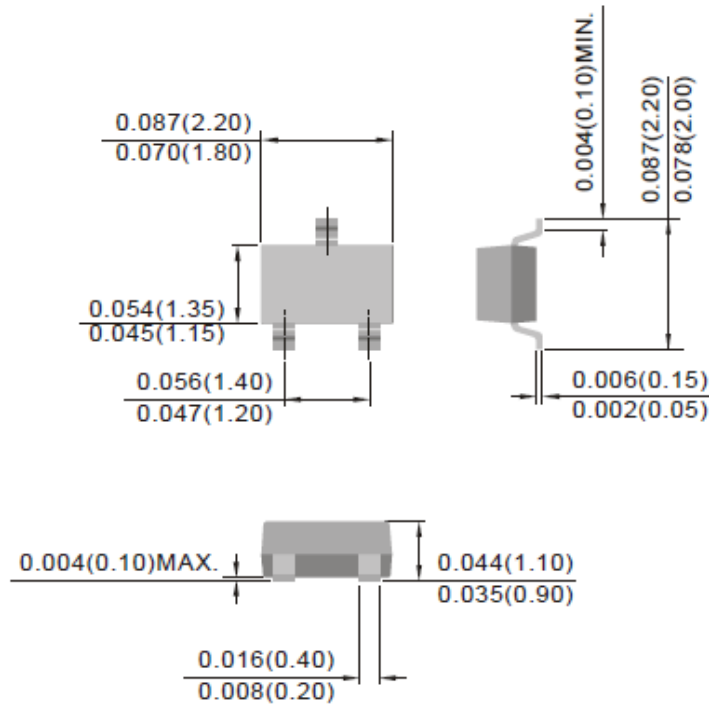
Fig.4 Typical Forward Voltage

# 200mW Surface Mount Zener Diodes

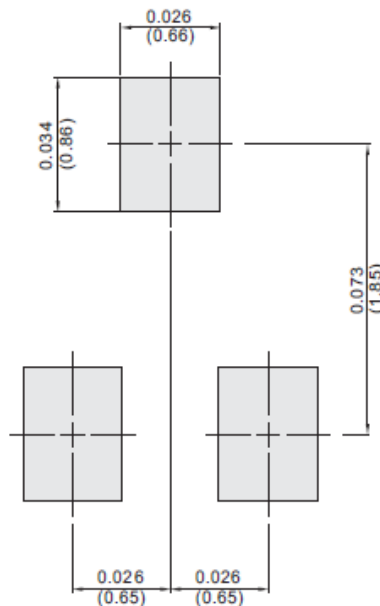
## MMBZ5221BWS-MMBZ5262BWS

Dimensions in inches (mm)

SOT-323



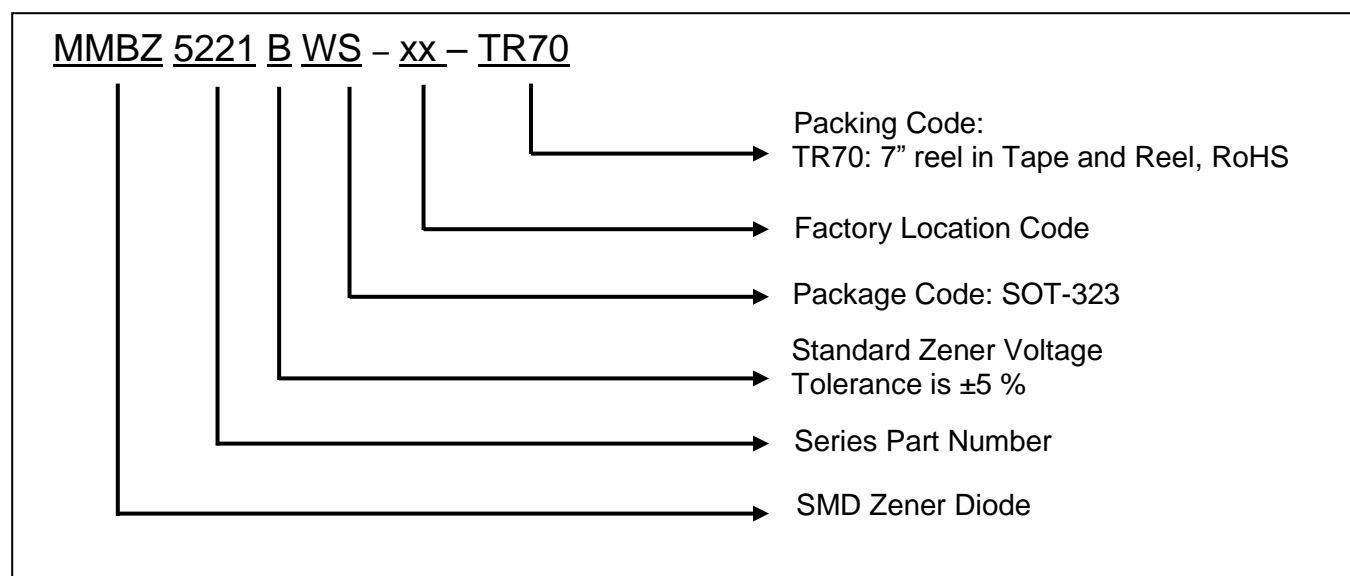
Mounting Pad Layout in inch (mm)



# 200mW Surface Mount Zener Diodes

## MMBZ5221BWS-MMBZ5262BWS

### Ordering Information



### How to contact us

#### US HEADQUARTERS

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800)-TAITRON (800)-824-8766 (661)-257-6060

Fax: (800)-TAITFAX (800)-824-8329 (661)-257-6415

Email: [taitron@taitroncomponents.com](mailto:taitron@taitroncomponents.com)

Http://[www.taitroncomponents.com](http://www.taitroncomponents.com)

#### TAITRON COMPONENTS MEXICO, S.A .DE C.V.

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO

C.P. 42970 MEXICO

Tel: +52-55-5560-1519

Fax: +52-55-5560-2190

#### TAITRON COMPONENTS INCORPORATED TAIWAN, TAIPEI

6F., No.190, Sec. 2, Zhongxing Rd., Xindian Dist., New Taipei City 23146, Taiwan R.O.C.

Tel: 886-2-2913-6238

Fax: 886-2-2913-6239

#### TAITRON COMPONENT TECHNOLOGY, SHANGHAI CORPORATION

METROBANK PLAZA, 1160 WEST YAN'AN ROAD, SUITE 1503, SHANGHAI, 200052, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-2302-5027