



## TRIPLE ISOLATED 200mW ZENERS in SOT-363

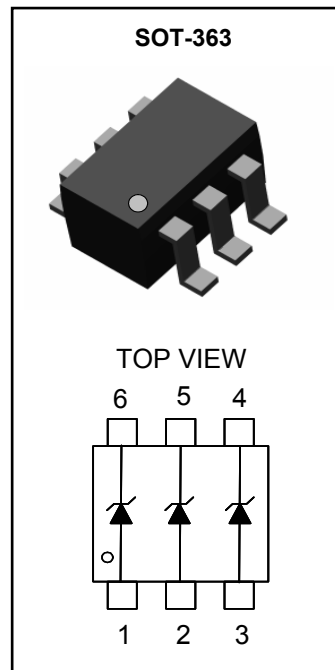
This new PANJIT family of triple, isolated Zeners comes in the very small SOT-363 package. It's very small footprint makes it ideal for applications where board space is a premium.

### SPECIFICATION FEATURES

- Working Peak Reverse Voltage Range - 2.4V to 47V
- 5% Tolerance (2% Optional)
- 200mW Power Dissipation With Minimum Pad Mounting
- Low Profile (typ. 0.9 mm) SOT-363 Package

### APPLICATIONS

- Camcorders, MP3 Players, Digital Cameras
- Handheld/Laptop Computers
- Portable Instrumentation Electronics



### MAXIMUM RATINGS $T_J = 25^{\circ}\text{C}$

Rating	Symbol	Value	Units
Power Dissipation (Note 1)	$P_D$	200	mW
Operating Temperature Range	$T_J$	-65 to +150	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	-65 to +150	$^{\circ}\text{C}$

### THERMAL CHARACTERISTICS

Characteristics	Symbol	Value	Units
Thermal Resistance Junction to Ambient (Note 1)	$R_{th JA}$	625	$^{\circ}\text{C/W}$

Note 1. FR-5 Board, minimum pad mounting (see min pad layout on page 3).



# MMBZ5221BTW - MMBZ5261BTW

## ELECTRICAL CHARACTERISTICS $T_J = 25^\circ\text{C}$

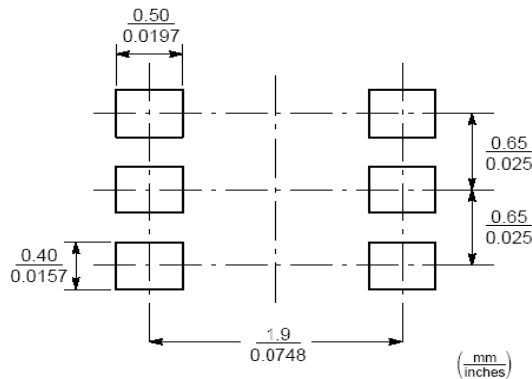
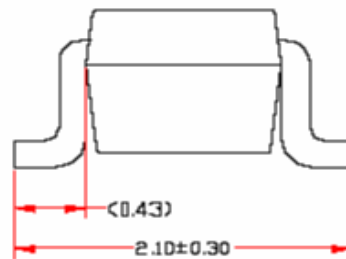
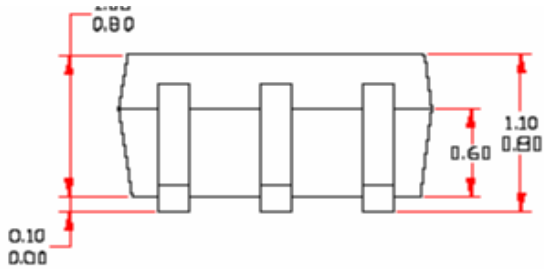
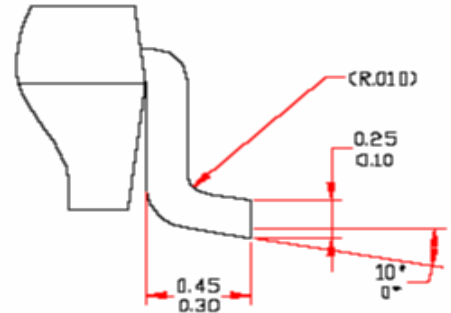
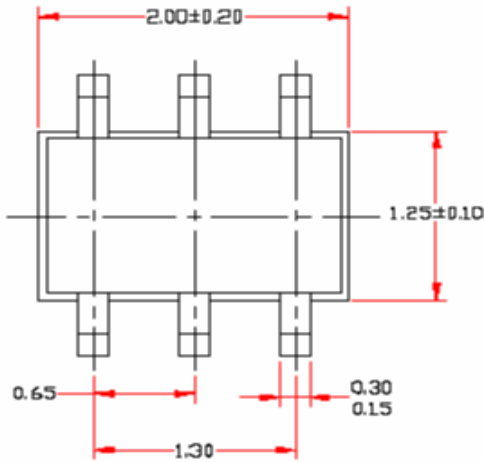
$V_F = 0.9\text{V MAX FOR ALL TYPES}$

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max. Reverse Leakage Current		Marking Code
	$V_Z @ I_{ZT}$			$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		
	Nom. V	Min. V	Max. V	$\Omega$	mA	$\Omega$	mA	$\mu\text{A}$	V	
MMBZ5221BTW	2.4	2.280	2.520	30	20.0	1200	0.25	100	1.0	21T
MMBZ5222BTW	2.5	2.375	2.625	30	20.0	1250	0.25	100	1.0	22T
MMBZ5223BTW	2.7	2.565	2.835	30	20.0	1300	0.25	75	1.0	23T
MMBZ5224BTW	2.8	2.660	2.940	30	20.0	1400	0.25	75	1.0	24T
MMBZ5225BTW	3.0	2.850	3.150	29	20.0	1600	0.25	50	1.0	25T
MMBZ5226BTW	3.3	3.135	3.465	28	20.0	1600	0.25	25	1.0	26T
MMBZ5227BTW	3.6	3.420	3.780	24	20.0	1700	0.25	15	1.0	27T
MMBZ5228BTW	3.9	3.705	4.095	23	20.0	1900	0.25	10	1.0	28T
MMBZ5229BTW	4.3	4.085	4.515	22	20.0	2000	0.25	5.0	1.0	29T
MMBZ5230BTW	4.7	4.465	4.935	19	20.0	1900	0.25	5.0	2.0	30T
MMBZ5231BTW	5.1	4.845	5.355	17	20.0	1600	0.25	5.0	2.0	31T
MMBZ5232BTW	5.6	5.320	5.880	11	20.0	1600	0.25	5.0	3.0	32T
MMBZ5233BTW	6.0	5.700	6.300	7.0	20.0	1600	0.25	5.0	3.5	33T
MMBZ5234BTW	6.2	5.890	6.510	7.0	20.0	1000	0.25	3.0	4.0	34T
MMBZ5235BTW	6.8	6.460	7.140	5.0	20.0	750	0.25	3.0	5.0	35T
MMBZ5236BTW	7.5	7.125	7.875	6.0	20.0	500	0.25	3.0	6.0	36T
MMBZ5237BTW	8.2	7.790	8.610	8.0	20.0	500	0.25	3.0	6.5	37T
MMBZ5238BTW	8.7	8.265	9.135	8.0	20.0	600	0.25	3.0	6.5	38T
MMBZ5239BTW	9.1	8.645	9.555	10	20.0	600	0.25	3.0	7.0	39T
MMBZ5240BTW	10	9.50	10.50	17	20.0	600	0.25	3.0	8.0	40T
MMBZ5241BTW	11	10.45	11.55	22	20.0	600	0.25	2.0	8.4	41T
MMBZ5242BTW	12	11.40	12.60	30	20.0	600	0.25	1.0	9.1	42T
MMBZ5243BTW	13	12.35	13.65	13	9.5	600	0.25	0.5	9.9	43T
MMBZ5244BTW	14	13.30	14.70	15	9.0	600	0.25	0.1	10	44T
MMBZ5245BTW	15	14.25	15.75	16	8.5	600	0.25	0.1	11	45T
MMBZ5246BTW	16	15.20	16.80	17	7.8	600	0.25	0.1	12	46T
MMBZ5247BTW	17	16.15	17.85	19	7.4	600	0.25	0.1	13	47T
MMBZ5248BTW	18	17.10	18.90	21	7.0	600	0.25	0.1	14	48T
MMBZ5249BTW	19	18.05	19.95	23	6.6	600	0.25	0.1	14	49T
MMBZ5250BTW	20	19.00	21.00	25	6.2	600	0.25	0.1	15	50T
MMBZ5251BTW	22	20.90	23.10	29	5.6	600	0.25	0.1	17	51T
MMBZ5252BTW	24	22.80	25.20	33	5.2	600	0.25	0.1	18	52T
MMBZ5253BTW	25	23.75	26.25	35	5.0	600	0.25	0.1	19	53T
MMBZ5254BTW	27	25.65	28.35	41	4.6	600	0.25	0.1	21	54T
MMBZ5255BTW	28	26.60	29.40	44	4.5	600	0.25	0.1	21	55T
MMBZ5256BTW	30	28.50	31.50	49	4.2	600	0.25	0.1	23	56T
MMBZ5257BTW	33	31.35	34.65	58	3.8	700	0.25	0.1	25	57T
MMBZ5258BTW	36	34.20	37.80	70	3.4	700	0.25	0.1	27	58T
MMBZ5259BTW	39	37.05	40.95	80	3.2	800	0.25	0.1	30	59T
MMBZ5260BTW	43	40.85	45.15	93	3.0	900	0.25	0.1	33	60T
MMBZ5261BTW	47	44.65	49.35	105	2.7	1000	0.25	0.1	36	61T



## SOT-363 PACKAGE OUTLINE AND MINIMUM PAD LAYOUT

All dimensions in mm



### ORDERING INFORMATION

MMBZ52xxBTW T/R 7 - 7 inch reels, 3K units per reel

MMBZ52xxBTW T/R13 - 13 inch reels, 10K units per reel

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