

MM5Z2V4T1 SERIES

ELECTRICAL CHARACTERISTICS

($T_A = 25^\circ\text{C}$ unless otherwise noted,
 $V_F = 0.9\text{ V Max. @ } I_F = 10\text{ mA}$ for all types)

Symbol	Parameter
V_Z	Reverse Zener Voltage @ I_{ZT}
I_{ZT}	Reverse Current
Z_{ZT}	Maximum Zener Impedance @ I_{ZT}
I_{ZK}	Reverse Current
Z_{ZK}	Maximum Zener Impedance @ I_{ZK}
I_R	Reverse Leakage Current @ V_R
V_R	Reverse Voltage
I_F	Forward Current
V_F	Forward Voltage @ I_F
ΘV_Z	Maximum Temperature Coefficient of V_Z
C	Max. Capacitance @ $V_R = 0$ and $f = 1\text{ MHz}$

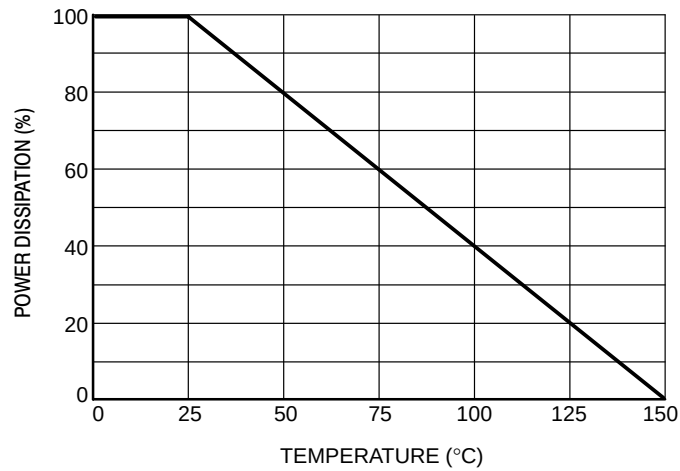
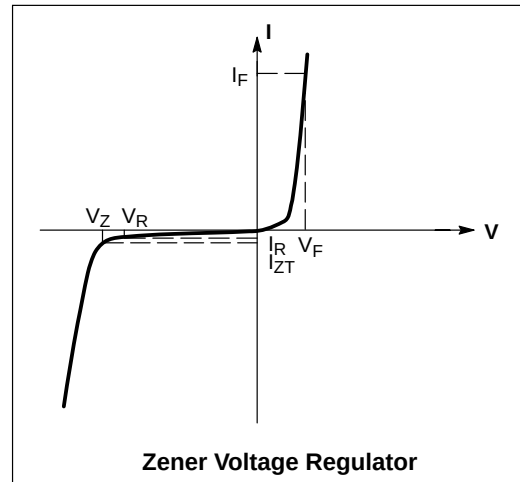


Figure 1. Steady State Power Derating

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ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted, $V_F = 0.9\text{ V Max.}$ @ $I_F = 10\text{ mA}$ for all types)

Device*	Device Marking	Zener Voltage (Note 1)				Zener Impedance			Leakage Current		ϑV _Z (mV/k) @ I _{ZT}		C @ V _R = 0 f = 1 MHz
		V _Z (Volts)			@ I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}		I _R @ V _R				
		Min	Nom	Max	mA	Ω	Ω	mA	μA	Volts	Min	Max	pF
MM5Z2V4T1	00	2.2	2.4	2.6	5	100	1000	1.0	50	1.0	-3.5	0	450
MM5Z2V7T1	01	2.5	2.7	2.9	5	100	1000	1.0	20	1.0	-3.5	0	450
MM5Z3V0T1	02	2.8	3.0	3.2	5	100	1000	1.0	10	1.0	-3.5	0	450
MM5Z3V3T1	05	3.1	3.3	3.5	5	95	1000	1.0	5	1.0	-3.5	0	450
MM5Z3V6T1	06	3.4	3.6	3.8	5	90	1000	1.0	5	1.0	-3.5	0	450
MM5Z3V9T1	07	3.7	3.9	4.1	5	90	1000	1.0	3	1.0	-3.5	-2.5	450
MM5Z4V3T1	08	4.0	4.3	4.6	5	90	1000	1.0	3	1.0	-3.5	0	450
MM5Z4V7T1	09	4.4	4.7	5.0	5	80	800	1.0	3	2.0	-3.5	0.2	260
MM5Z5V1T1	0A	4.8	5.1	5.4	5	60	500	1.0	2	2.0	-2.7	1.2	225
MM5Z5V6T1	0C	5.2	5.6	6.0	5	40	200	1.0	1	2.0	-2.0	2.5	200
MM5Z6V2T1	0E	5.8	6.2	6.6	5	10	100	1.0	3	4.0	0.4	3.7	185
MM5Z6V8T1	0F	6.4	6.8	7.2	5	15	160	1.0	2	4.0	1.2	4.5	155
MM5Z7V5T1	0G	7.0	7.5	7.9	5	15	160	1.0	1	5.0	2.5	5.3	140
MM5Z8V2T1	0H	7.7	8.2	8.7	5	15	160	1.0	0.7	5.0	3.2	6.2	135
MM5Z9V1T1	0K	8.5	9.1	9.6	5	15	160	1.0	0.2	7.0	3.8	7.0	130
MM5Z10VT1	0L	9.4	10	10.6	5	20	160	1.0	0.1	8.0	4.5	8.0	130
MM5Z11VT1	0M	10.4	11	11.6	5	20	160	1.0	0.1	8.0	5.4	9.0	130
MM5Z12VT1	0N	11.4	12	12.7	5	25	80	1.0	0.1	8.0	6.0	10	130
MM5Z13VT1	0P	12.4	13.25	14.1	5	30	80	1.0	0.1	8.0	7.0	11	120
MM5Z15VT1	0T	14.3	15	15.8	5	30	80	1.0	0.05	10.5	9.2	13	110
MM5Z16VT1	0U	15.3	16.2	17.1	5	40	80	1.0	0.05	11.2	10.4	14	105
MM5Z18VT1	0W	16.8	18	19.1	5	45	80	1.0	0.05	12.6	12.4	16	100
MM5Z20VT1	0Z	18.8	20	21.2	5	55	100	1.0	0.05	14.0	14.4	18	85
MM5Z22VT1	10	20.8	22	23.3	5	55	100	1.0	0.05	15.4	16.4	20	85
MM5Z24VT1	11	22.8	24.2	25.6	5	70	120	1.0	0.05	16.8	18.4	22	80
MM5Z27VT1	12	25.1	27	28.9	2	80	300	1.0	0.05	18.9	21.4	25.3	70
MM5Z30VT1	14	28	30	32	2	80	300	1.0	0.05	21.0	24.4	29.4	70
MM5Z33VT1	18	31	33	35	2	80	300	1.0	0.05	23.2	27.4	33.4	70
MM5Z36VT1	19	34	36	38	2	90	500	1.0	0.05	25.2	30.4	37.4	70
MM5Z39VT1	20	37	39	41	2	130	500	1.0	0.05	27.3	33.4	41.2	45
MM5Z43VT1	21	40	43	46	2	150	500	1.0	0.05	30.1	37.6	46.6	40
MM5Z47VT1	1A	44	47	50	2	170	500	1.0	0.05	32.9	42.0	51.8	40
MM5Z51VT1	1C	48	51	54	2	180	500	1.0	0.05	35.7	46.6	57.2	40
MM5Z56VT1	1D	52	56	60	2	200	500	1.0	0.05	39.2	52.2	63.8	40
MM5Z62VT1	1E	58	62	66	2	215	500	1.0	0.05	43.4	58.8	71.6	35
MM5Z68VT1	1F	64	68	72	2	240	500	1.0	0.05	47.6	65.6	79.8	35
MM5Z75VT1	1G	70	75	79	2	255	500	1.0	0.05	52.5	73.4	88.6	35

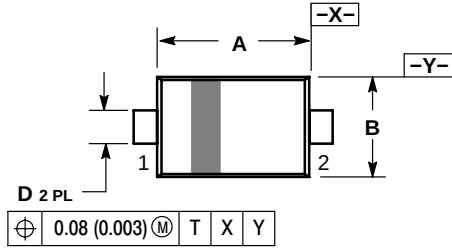
1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C .

*The "G" suffix indicates Pb-Free package available.

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PACKAGE DIMENSIONS

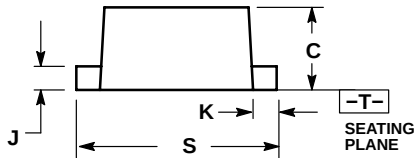
SOD-523
CASE 502-01
ISSUE B



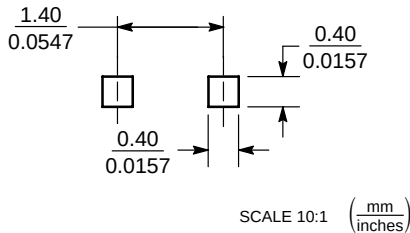
NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.10	1.20	1.30	0.043	0.047	0.051
B	0.70	0.80	0.90	0.028	0.032	0.035
C	0.50	0.60	0.70	0.020	0.024	0.028
D	0.25	0.30	0.35	0.010	0.012	0.014
J	0.07	0.14	0.20	0.0028	0.0055	0.0079
K	0.15	0.20	0.25	0.006	0.008	0.010
S	1.50	1.60	1.70	0.059	0.063	0.067



SOLDERING FOOTPRINT*



*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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