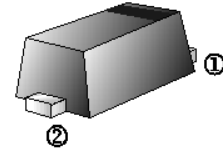


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- Constant Voltage Control
- Standard Zener Breakdown Voltage Range 2.4V-75V
- Matte Tin (Sn) Lead Finish

SOD-523

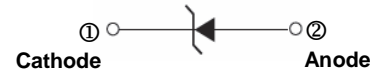


## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-523	8K	7 inch

## ORDER INFORMATION

Part Number	Type
MM5Z Series-C	Lead (Pb)-free and Halogen-free



## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Power Dissipation	P <sub>D</sub>	150	mW
Operating Junction Temperature Range	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	

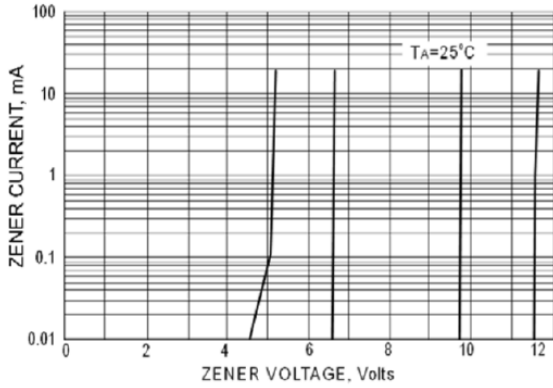
**ELECTRICAL RATINGS** ( $T_A = 25^\circ\text{C}$  unless otherwise specified)

Part Number	Marking	Zener Voltage Range <sup>1</sup>				Maximum Zener Impedance			Maximum Reverse Current	
		V <sub>Z</sub> @ I <sub>ZT</sub>			I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub>	V <sub>R</sub>
		Min.	Nom.	Min.						
		V			mA	$\Omega$	mA	$\mu\text{A}$	V	
MM5Z2V4-C	Z11/00/50	2.2	2.4	2.6	5	100	600	1	50	1
MM5Z2V7-C	Z12/01/51	2.5	2.7	2.9	5	100	600	1	20	1
MM5Z3V0-C	Z13/02/52	2.8	3	3.2	5	95	600	1	10	1
MM5Z3V3-C	Z14/05/53	3.1	3.3	3.5	5	95	600	1	5	1
MM5Z3V6-C	Z15/06/54	3.4	3.6	3.8	5	90	600	1	5	1
MM5Z3V9-C	Z16/07/55	3.7	3.9	4.1	5	90	600	1	3	1
MM5Z4V3-C	Z17/08/56	4.0	4.3	4.6	5	90	600	1	3	1
MM5Z4V7-C	Z1/09/57	4.4	4.7	5	5	80	500	1	3	2
MM5Z5V1-C	Z2/0A/58	4.8	5.1	5.4	5	60	480	1	2	2
MM5Z5V6-C	Z3/0C/59	5.2	5.6	6	5	40	400	1	1	2
MM5Z6V2-C	Z4/0E/5A	5.8	6.2	6.6	5	10	150	1	3	4
MM5Z6V8-C	Z5/0F/5B	6.4	6.8	7.2	5	15	80	1	2	4
MM5Z7V5-C	Z6/0G/5C	7	7.5	7.9	5	15	80	1	1	5
MM5Z8V2-C	Z7/0H/5D	7.7	8.2	8.7	5	15	80	1	0.7	5
MM5Z9V1-C	Z8/0K/5E	8.5	9.1	9.6	5	15	100	1	0.5	6
MM5Z10V-C	Z9/0L/5F	9.4	10	10.6	5	20	150	1	0.2	7
MM5Z11V-C	Y1/0M/5G	10.4	11	11.6	5	20	150	1	0.1	8
MM5Z12V-C	Y2/0N/5H	11.4	12	12.7	5	25	150	1	0.1	8
MM5Z13V-C	Y3/0P/5J	12.4	13	14.1	5	30	170	1	0.1	8
MM5Z14V-C	Z10	13.3	14	14.7	5	30	110	1	0.1	10.5
MM5Z15V-C	Y4/0T/5K	13.8	15	15.6	5	30	200	1	0.1	10.5
MM5Z16V-C	Y5/0U/5L	15.3	16	17.1	5	40	200	1	0.1	11.2
MM5Z18V-C	Y6/0W/5M	16.8	18	19.1	5	45	225	1	0.1	12.6
MM5Z20V-C	Y7/0Z/5N	18.8	20	21.2	5	55	225	1	0.1	14
MM5Z22V-C	Y8/10/5P	20.8	22	23.3	5	55	250	1	0.1	15.4
MM5Z24V-C	Y9/11/5R	22.8	24	25.6	5	70	250	1	0.1	16.8
MM5Z27V-C	Y10/12/5S	25.1	27	28.9	2	80	300	0.5	0.1	18.9
MM5Z30V-C	Y11/14/5T	28	30	32	2	80	300	0.5	0.1	21
MM5Z33V-C	Y12/18/5U	31	33	35	2	80	325	0.5	0.1	23.1
MM5Z36V-C	Y13/19/5V	34	36	38	2	90	350	0.5	0.1	25.2
MM5Z39V-C	Y14/20/5X	37	39	41	2	130	350	0.5	0.1	27.3
MM5Z43V-C	Y15/5Y	40	43	46	2	100	700	1	0.1	32
MM5Z47V-C	V1/5Z	44.65	47	49.35	2	170	1000	0.25	0.1	36
MM5Z51V-C	V2/5-	48.45	51	53.55	2	180	1300	0.25	0.1	39
MM5Z56V-C	V3/5=	53.2	56	58.8	2	200	1400	0.25	0.1	43
MM5Z62V-C	V4/5≡	58.9	62	65.1	2	225	1400	0.25	0.1	47
MM5Z68V-C	V5/5>	64.6	68	71.4	2	240	1600	0.25	0.1	52
MM5Z75V-C	V6/5<	71.25	75	78.75	2	265	1700	0.25	0.1	56

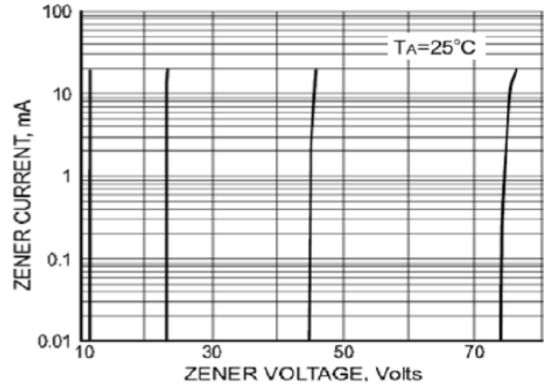
Note:  
1. Pulse width=10ms.

**CHARACTERISTIC CURVES**

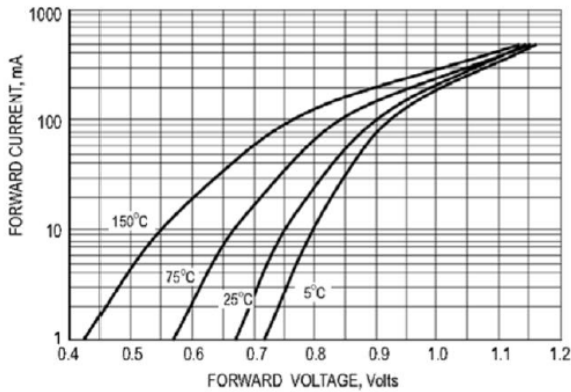
ZENER BREAKDOWN CHARACTERISTIC



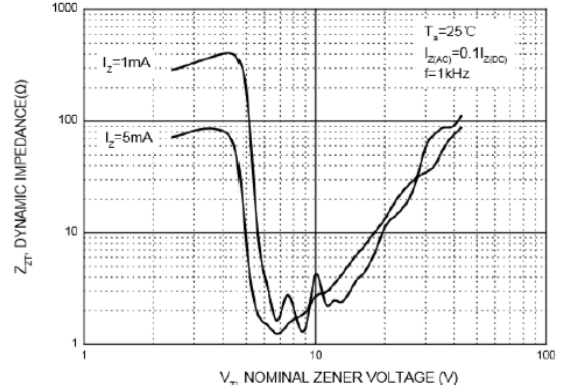
ZENER BREAKDOWN CHARACTERISTIC



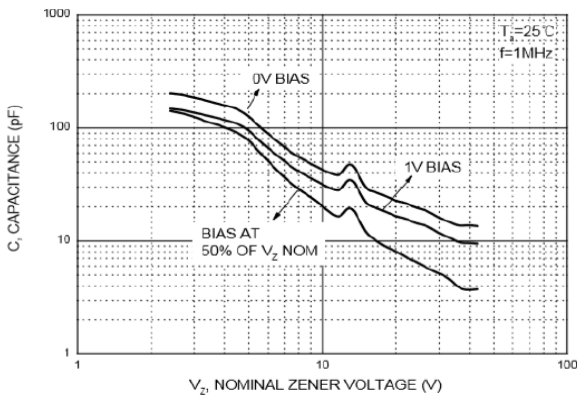
TYPICAL FORWARD VOLTAGE



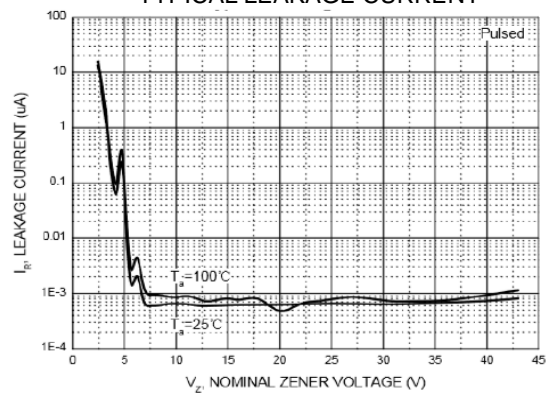
EFFECT OF ZENER VOLTAGE ON ZENER



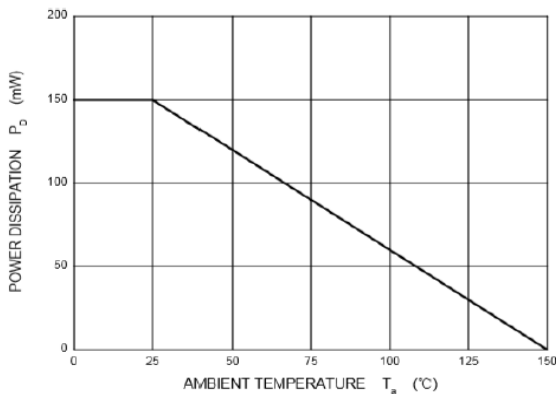
TYPICAL CAPACITANCE



TYPICAL LEAKAGE CURRENT

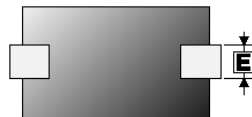
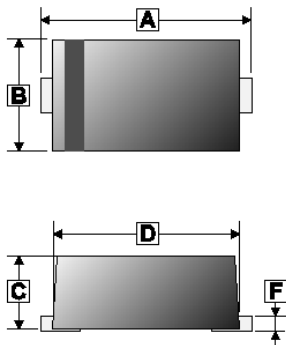


POWER DERATING CURVE



**PACKAGE OUTLINE DIMENSIONS**

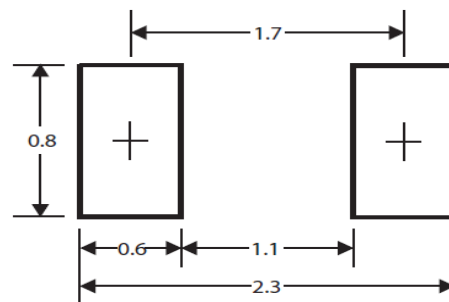
**SOD-523**



REF.	Millimeter	
	Min.	Max.
A	1.50	1.70
B	0.70	0.90
C	0.50	0.77
D	1.10	1.30
E	0.25	0.40
F	0.05	0.20

**MOUNTING PAD LAYOUT**

**SOD-523**



\*Dimensions in millimeters