

# MM5Z2V4 - MM5Z75V

## Zener Diodes

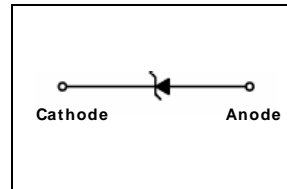
### Features

- Wide Zener Voltage Range Selection, 2.4V to 75V
- Flat Lead, Surface Mount Device Under 0.70mm Height
- Extremely Small Outline Plastic Package SOD523F
- Moisture Sensitivity Level 1
- Pb Free Version and RoHS Compliant
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode
- Green Mold Compound



SOD-523F

### Electrical Symbol



### Absolute Maximum Ratings T<sub>a</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P <sub>D</sub>	Power Dissipation	200	mW
T <sub>STG</sub>	Storage Temperature Range	-55 to +150	°C
T <sub>OPR</sub>	Operating Temperature Range	-55 to +150	°C

\* These ratings are limiting values above which the serviceability of the diode may be impaired.

### Thermal Characteristics

Symbol	Parameter	Value	Unit
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	500	°C/W

\* Device mounted on FR-4 PCB minimum land pad.

### Package Marking and Ordering Information

Device Marking	Device	Package	Packing	Reel Size	Tape Width	Quantity
Refer to Product table list	Refer to Product table list	SOD-523F	Tape & Reel	7"	12mm	3,000

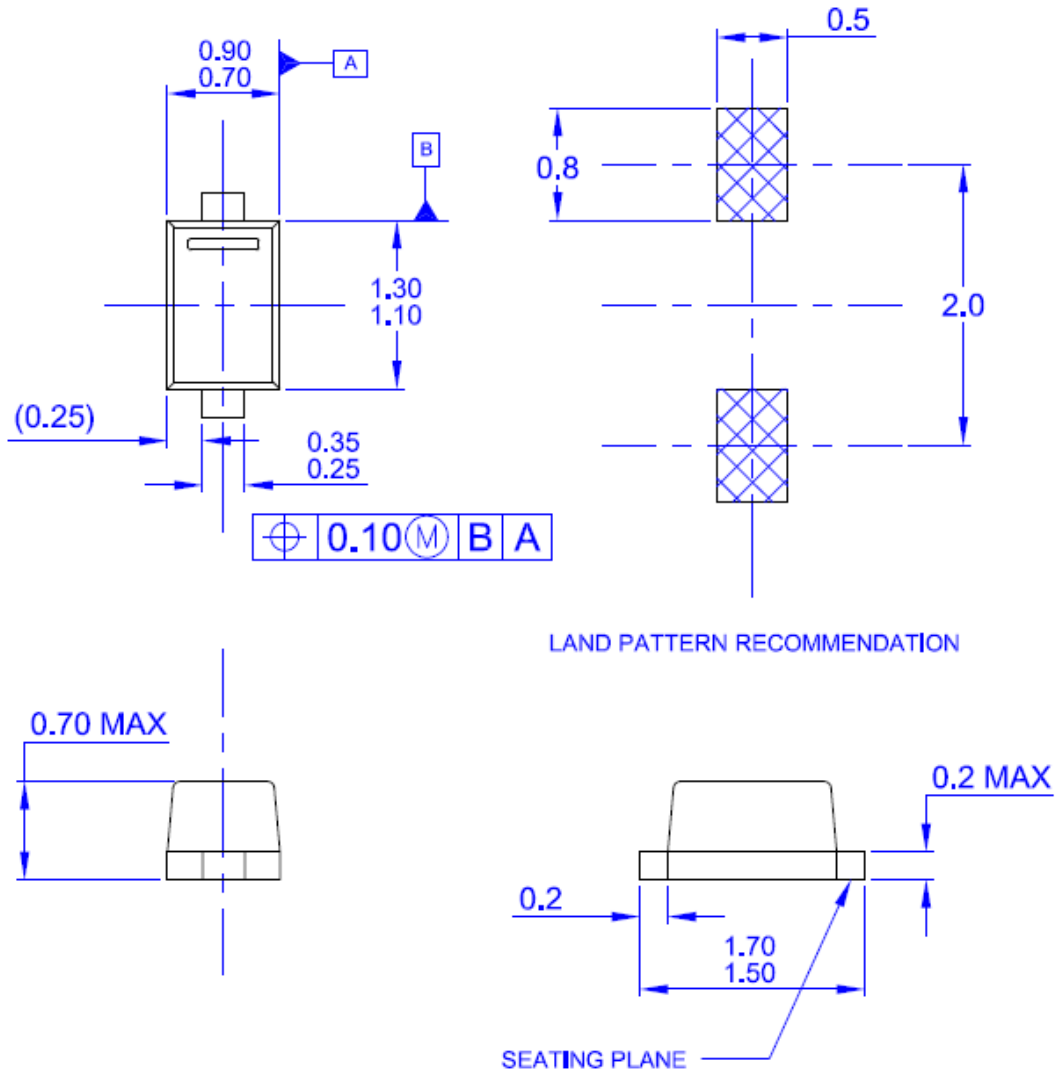
**Electrical Characteristics**  $T_A=25^\circ\text{C}$  unless otherwise noted

Device Type	Device Marking	$V_Z$ (V) @ $I_{ZT}$			$Z_{ZT}(\Omega)$ @ $I_{ZT}$	$I_{ZT}$ (mA)	$Z_{ZK}(\Omega)$ @ $I_{ZK}$	$I_{ZK}$ (mA)	$I_R(\mu\text{A})$ @ $V_R$	$V_R$ (V)
		Min.	Typ.	Max.	Max.	-	Max.	-	Max	-
MM5Z2V4	50	2.2	2.4	2.6	100	5	1000	1	50	1
MM5Z2V7	51	2.5	2.7	2.9	100	5	1000	1	20	1
MM5Z3V0	52	2.8	3.0	3.2	100	5	1000	1	10	1
MM5Z3V3	53	3.1	3.3	3.5	95	5	1000	1	5	1
MM5Z3V6	54	3.4	3.6	3.8	90	5	1000	1	5	1
MM5Z3V9	55	3.7	3.9	4.1	90	5	1000	1	3	1
MM5Z4V3	56	4.0	4.3	4.6	90	5	1000	1	3	1
MM5Z4V7	57	4.4	4.7	5.0	80	5	800	1	3	2
MM5Z5V1	58	4.8	5.1	5.4	60	5	500	1	2	2
MM5Z5V6	59	5.2	5.6	6.0	40	5	200	1	1	2
MM5Z6V2	5A	5.8	6.2	6.6	10	5	100	1	3	4
MM5Z6V8	5B	6.4	6.8	7.2	15	5	160	1	2	4
MM5Z7V5	5C	7.0	7.5	7.9	15	5	160	1	1	5
MM5Z8V2	5D	7.7	8.2	8.7	15	5	160	1	0.7	5
MM5Z9V1	5E	8.5	9.1	9.6	15	5	160	1	0.2	7
MM5Z10V	5F	9.4	10	10.6	20	5	160	1	0.1	8
MM5Z11V	5G	10.4	11	11.6	20	5	160	1	0.1	8
MM5Z12V	5H	11.4	12	12.7	25	5	80	1	0.1	8
MM5Z13V	5J	12.4	13	14.1	30	5	80	1	0.1	8
MM5Z15V	5K	14.3	15	15.8	30	5	80	1	0.05	10.5
MM5Z16V	5L	15.3	16	17.1	40	5	80	1	0.05	11.2
MM5Z18V	5M	16.8	18	19.1	45	5	80	1	0.05	12.6
MM5Z20V	5N	18.8	20	21.2	55	5	100	1	0.05	14.0
MM5Z22V	5P	20.8	22	23.3	55	5	100	1	0.05	15.4
MM5Z24V	5R	22.8	24	25.6	70	5	120	1	0.05	16.8
MM5Z27V	5S	25.1	27	28.9	80	2	300	0.5	0.05	18.9
MM5Z30V	5T	28	30	32	80	2	300	0.5	0.05	21.0
MM5Z33V	5U	31	33	35	80	2	300	0.5	0.05	23.2
MM5Z36V	5V	34	36	38	90	2	500	0.5	0.05	25.2
MM5Z39V	5X	37	39	41	130	2	500	0.5	0.05	27.3
MM5Z43V	5Y	40	43	46	150	2	500	0.5	0.05	30.1
MM5Z47V	5Z	44	47	50	170	2	500	0.5	0.05	32.9
MM5Z51V	5-	48	51	54	180	2	500	0.5	0.05	35.7
MM5Z56V	5=	52	56	60	200	2	500	0.5	0.05	39.2
MM5Z62V	5≡	58	62	66	215	2	500	0.5	0.05	43.4
MM5Z68V	5>	64	68	72	240	2	500	0.5	0.05	47.6
MM5Z75V	5<	70	75	79	255	2	500	0.5	0.05	52.5

**NOTES:**

- 1) The Zener Voltage ( $V_Z$ ) is tested under pulse condition of 10mS.
- 2) The Zener impedance is derived from the 60-cycle AC voltage, which results when an AC current having an RMS value equal to 10% of the DC Zener current ( $I_{ZT}$  or  $I_{ZK}$ ) is superimposed to  $I_{ZT}$  or  $I_{ZK}$ .

### SOD-523F Package Outline






**NOTES; UNLESS OTHERWISE SPECIFIED**

- A) PACKAGE REFERENCE; THIS PACKAGE OUTLINE CONFORMS TO JEITA SC-79.
- B) ALL DIMENSIONS ARE IN MILLIMETERS.
- C) DRAWING CONFORMS TO ASME Y14.5M - 1994
- D) DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS.
- E) LANDPATTERN RECOMMENDATION IS BASED ON IPC7351A STANDARD SOD1609X65M.
- F) DRAWING NUMBER AND REVISION;MKT-SOD523F1rev1



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