

**2% 500mW SOD-523 PLANAR ZENER SERIES**

**Features**

- Standard Zener Breakdown Voltage Range 2.0 V to 75 V
- Steady State Power Rating of 500 mW
- P/N suffix V means AEC-Q101 qualified, e.g:MM5Z2V0BV
- Halogen-free

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.

Top View  
Simplified outline SOD-523 and symbol



**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode

**Absolute Maximum Ratings ( $T_a = 25\text{ °C}$ )**

Parameter	Symbol	Value	Unit
Total Device Dissipation	$P_{tot}$	500	mW
Junction and Storage Temperature Range	$T_j, T_{stg}$	- 65 to + 150	°C

**Characteristics at  $T_a = 25\text{ °C}$**

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 10\text{ mA}$	$V_F$	0.9	V

Type	Marking Code	Zener Voltage <sup>1)</sup>				Zener Impedance			Leakage Current	
		V <sub>ZT</sub> (V)			at I <sub>ZT</sub>	Z <sub>ZT</sub>	Z <sub>ZK</sub>	at I <sub>ZK</sub>	I <sub>R</sub>	at V <sub>R</sub>
		Min.	Nom.	Max.	mA	Ω	Ω	mA	μA	V
MM5Z2V0B	RD	1.96	2.0	2.04	5	100	-	-	120	0.5
MM5Z2V2B	RE	2.15	2.2	2.24	5	100	-	-	120	0.7
MM5Z2V4B	Z7	2.35	2.4	2.45	5	100	1000	1	120	1
MM5Z2V7B	A8	2.65	2.7	2.75	5	100	1000	1	120	1
MM5Z3V0B	B8	2.94	3.0	3.06	5	100	1000	1	50	1
MM5Z3V3B	C8	3.23	3.3	3.37	5	95	1000	1	20	1
MM5Z3V6B	D8	3.53	3.6	3.67	5	90	1000	1	10	1
MM5Z3V9B	E8	3.82	3.9	3.98	5	90	1000	1	5	1
MM5Z4V3B	F8	4.21	4.3	4.39	5	90	1000	1	5	1
MM5Z4V7B	G8	4.61	4.7	4.79	5	80	800	1	2	1
MM5Z5V1B	H8	5.0	5.1	5.2	5	60	500	1	2	1.5
MM5Z5V6B	I8	5.49	5.6	5.71	5	40	200	1	1	2.5
MM5Z6V2B	J8	6.08	6.2	6.32	5	10	100	1	1	3
MM5Z6V8B	K8	6.66	6.8	6.94	5	15	160	1	0.5	3.5
MM5Z7V5B	L8	7.35	7.5	7.65	5	15	160	1	0.5	4
MM5Z8V2B	M8	8.04	8.2	8.36	5	15	160	1	0.5	5
MM5Z9V1B	N8	8.92	9.1	9.28	5	15	160	1	0.5	6
MM5Z10B	O8	9.8	10	10.2	5	20	160	1	0.05	7
MM5Z11B	P8	10.78	11	11.22	5	20	160	1	0.05	8
MM5Z12B	Q8	11.76	12	12.24	5	25	80	1	0.05	9
MM5Z13B	R8	12.74	13	13.26	5	30	80	1	0.05	10
MM5Z15B	S8	14.7	15	15.3	5	30	80	1	0.05	11
MM5Z16B	T8	15.68	16	16.32	2	40	80	1	0.05	12
MM5Z18B	U8	17.64	18	18.36	2	45	80	1	0.05	13
MM5Z20B	V8	19.6	20	20.4	2	55	100	1	0.05	15
MM5Z22B	W8	21.56	22	22.44	2	55	100	1	0.05	17
MM5Z24B	X8	23.52	24	24.48	2	70	120	1	0.05	19
MM5Z27B	Y8	26.46	27	27.54	2	80	300	1	0.05	21
MM5Z30B	Z8	29.4	30	30.6	2	80	300	1	0.05	23
MM5Z33B	A9	32.34	33	33.66	2	80	300	1	0.05	29
MM5Z36B	B9	35.28	36	36.72	2	90	500	1	0.05	27
MM5Z39B	C9	38.22	39	39.78	2	130	500	1	2	30
MM5Z43B	D9	42.14	43	43.86	1	150	500	1	2	33
MM5Z47B	E9	46.06	47	47.94	1	170	500	1	2	36
MM5Z51B	F9	49.98	51	52.02	1	180	500	1	1	39
MM5Z56B	G9	54.88	56	57.12	1	200	500	1	1	43
MM5Z62B	H9	60.76	62	63.24	1	215	500	1	0.2	47
MM5Z68B	I9	66.64	68	69.36	1	240	500	1	0.2	52
MM5Z75B	J9	73.5	75	76.5	1	255	500	1	0.2	57

<sup>1)</sup> Tested with pulses t<sub>p</sub> = 20 ms.

# PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

## SOD-523



UNIT	A	$b_p$	C	D	E	$H_E$	V	
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°

## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-523	-T	8,000	--	---	---	178	390*205*31	320,000	6.16