



# MM3Z2V4B THRU MM3Z75VB

Surface Mount Zener Diode

## Features

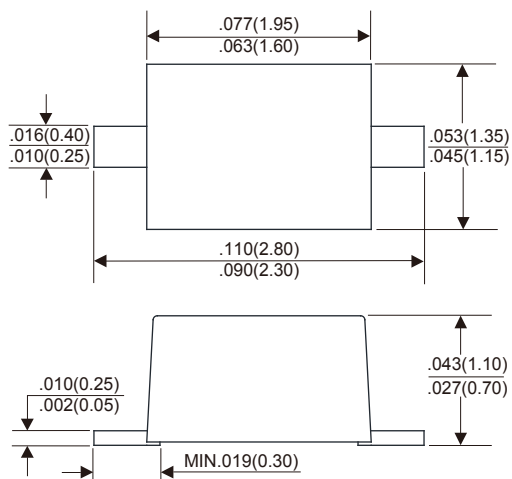
- ★ Ideally Suited for Automated Assembly Processes
- ★ High reliability
- ★ Zener voltage tolerance is  $\pm 2\%$

## Mechanical Data

- ★ Case: Molded plastic SOD-323FL
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Polarity: Color band denotes cathode end
- ★ Mounting position: Any

**Zener Voltage 2.4 to 75 V**  
**Power Dissipation 200 mW**

### SOD-323FL



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	$P_D$	200	mW
Maximum Instantaneous Forward Voltage @ $I_F=10\text{mA}$	$V_F$	1.0	V
Operating Junction Temperature Range	$T_J$	-65 to +150	°C
Storage Temperature Range	$T_{STG}$	-65 to +150	°C

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## Electrical Characteristics(T<sub>A</sub>=25°C unless otherwise noted)

Part Number	Device Marking Code	Nominal Zener Voltage V <sub>Z</sub> @I <sub>ZT</sub>			Maximum Zener Impedance			Maximum Reverse Leakage Current I <sub>R</sub> @V <sub>R</sub>	
		Min(V)	Max(V)	I <sub>ZT</sub> (mA)	Z <sub>ZT</sub> @I <sub>ZT</sub> (Ω)	Z <sub>ZK</sub> @I <sub>ZK</sub> (Ω)	I <sub>ZK</sub> (mA)	I <sub>R</sub> (μA)	V <sub>R</sub> (V)
MM3Z2V4B	0Z	2.35	2.45	5	100	564	1	45	1
MM3Z2V7B	1Z	2.65	2.75	5	100	564	1	18	1
MM3Z3V0B	2Z	2.94	3.06	5	100	564	1	9	1
MM3Z3V3B	3Z	3.23	3.37	5	95	564	1	4.5	1
MM3Z3V6B	4Z	3.53	3.67	5	90	564	1	4.5	1
MM3Z3V9B	5Z	3.82	3.98	5	90	564	1	2.7	1
MM3Z4V3B	6Z	4.21	4.39	5	90	564	1	2.7	1
MM3Z4V7B	7Z	4.61	4.79	5	80	470	1	2.7	2
MM3Z5V1B	8Z	5.00	5.20	5	60	451	1	1.8	2
MM3Z5V6B	9Z	5.49	5.71	5	40	376	1	0.9	2
MM3Z6V2B	AZ	6.08	6.32	5	10	141	1	2.7	4
MM3Z6V8B	BZ	6.66	6.94	5	15	75	1	1.8	4
MM3Z7V5B	CZ	7.35	7.65	5	15	75	1	0.9	5
MM3Z8V2B	DZ	8.04	8.36	5	15	75	1	0.63	5
MM3Z9V1B	EZ	8.92	9.28	5	15	94	1	0.45	6
MM3Z10VB	FZ	9.80	10.20	5	20	141	1	0.18	7
MM3Z11VB	GZ	10.78	11.22	5	20	141	1	0.09	8
MM3Z12VB	HZ	11.76	12.24	5	25	141	1	0.09	8
MM3Z13VB	JZ	12.74	13.26	5	30	160	1	0.09	8
MM3Z15VB	KZ	14.70	15.30	5	30	188	1	0.045	10.5
MM3Z16VB	LZ	15.68	16.32	5	40	188	1	0.045	11.2
MM3Z18VB	MZ	17.64	18.36	5	45	212	1	0.045	12.6
MM3Z20VB	NZ	19.60	20.40	5	55	212	1	0.045	14.0
MM3Z22VB	PZ	21.56	22.44	5	55	235	1	0.045	15.4
MM3Z24VB	RZ	23.52	24.48	5	70	235	1	0.045	16.8
MM3Z27VB	SZ	26.46	27.54	2	80	282	0.5	0.045	18.9
MM3Z30VB	TZ	29.40	30.60	2	80	282	0.5	0.045	21.0
MM3Z33VB	UZ	32.34	33.66	2	80	306	0.5	0.045	23.0
MM3Z36VB	VZ	35.28	36.72	2	90	329	0.5	0.045	25.2
MM3Z39VB	WZ	38.22	39.78	2	130	329	0.5	0.045	27.3
MM3Z43VB	XZ	42.14	43.86	2	150	353	0.5	0.045	30.1
MM3Z47VB	YZ	46.06	47.94	2	170	353	0.5	0.045	33.0
MM3Z51VB	-Z	49.98	52.02	2	180	376	0.5	0.045	35.7
MM3Z56VB	=Z	54.88	57.12	2	200	400	0.5	0.045	39.2
MM3Z62VB	≡Z	60.76	63.24	2	215	423	0.5	0.045	43.4
MM3Z68VB	>Z	66.64	69.36	2	240	447	0.5	0.045	47.6
MM3Z75VB	<Z	73.50	76.50	2	255	470	0.5	0.045	52.5

NOTES: (1)The Zener Voltage (V<sub>Z</sub>) is tested under pulse condition of 10ms.

(2)The device numbers listed have a standard tolerance on the nominal zener voltage of ±2%.

(3)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<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed to I<sub>ZT</sub> or I<sub>ZK</sub>.

# RATINGS AND CHARACTERISTIC CURVES MM3Z2V4B THRU MM3Z75VB

FIG.1 - POWER DERATING CURVE

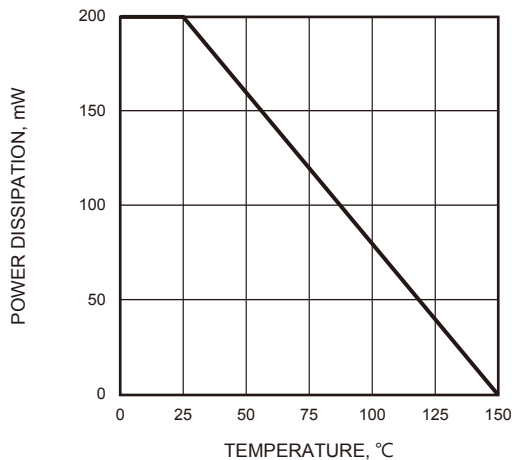


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

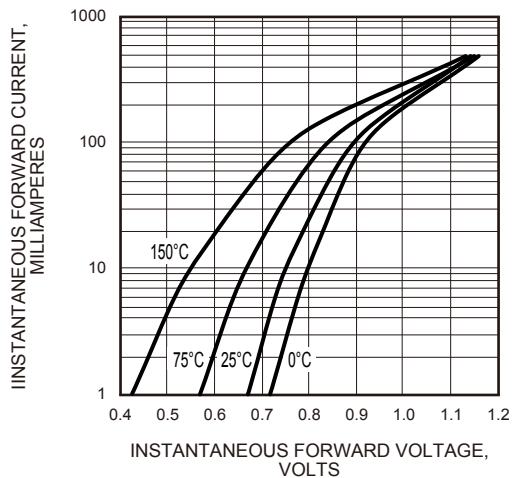


FIG.3 - EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

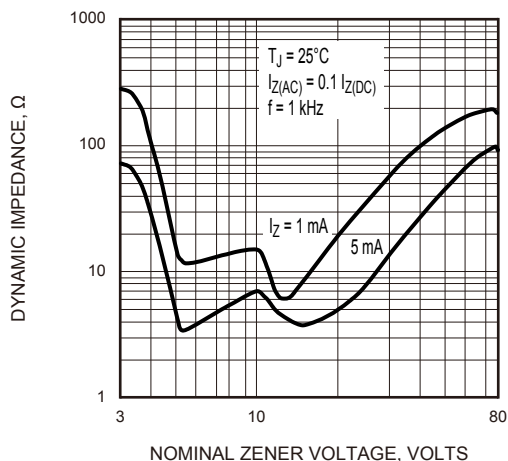


FIG.4 - TYPICAL CAPACITANCE

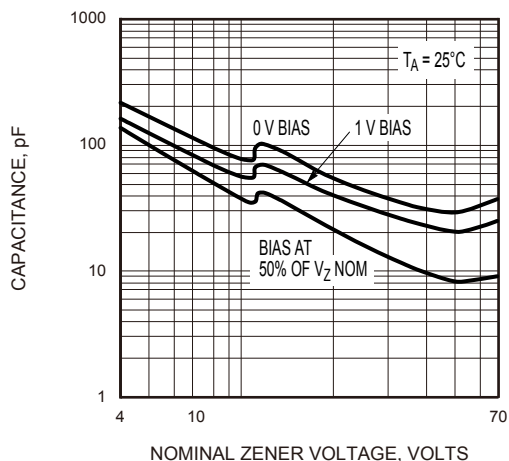


FIG.5 - TYPICAL LEAKAGE CURRENT

