



MMSZ2V4B THRU MMSZ75VB

Surface Mount Zener Diode

Features

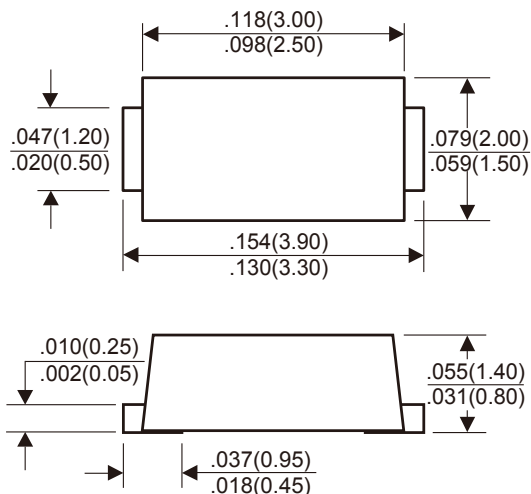
- ★ Ideally suited for automated assembly processes
- ★ High reliability
- ★ Zener voltage tolerance is $\pm 2\%$

Mechanical Data

- ★ Case: Molded plastic, SOD-123FL
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-750, method 2026
- ★ Polarity: Color band denotes cathode end
- ★ Mounting position: Any

Zener Voltage 2.4 to 75 V
Power Dissipation 500 mW

SOD-123FL



MAXIMUM RATINGS

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

PARAMETER	SYMBOL	VALUE	UNIT
Power dissipation	P_D	500	mW
Forward voltage at $I_F = 10\text{mA}$	V_F	0.9	V
Thermal resistance from junction to ambient	$R_{\theta JA}$	340	$^\circ\text{C/W}$
Junction temperature range	T_J	-65 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +150	$^\circ\text{C}$

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

Part Number	Device Marking Code	Zener Voltage $V_Z@I_{ZT}$			Maximum Zener Impedance			Maximum Reverse Leakage Current $I_R@V_R$	
		Min (V)	Max (V)	I_{ZT} (mA)	$Z_{ZT}@I_{ZT}$ (Ω)	$Z_{ZK}@I_{ZK}$ (Ω)	I_{ZK} (mA)	I_R (μA)	V_R (V)
MMSZ2V4B	5Y1	2.35	2.45	5	100	564	1	45	1
MMSZ2V7B	5Z1	2.65	2.75	5	100	564	1	18	1
MMSZ3V0B	6A1	2.94	3.06	5	100	564	1	9	1
MMSZ3V3B	6B1	3.23	3.37	5	95	564	1	4.5	1
MMSZ3V6B	6C1	3.53	3.67	5	90	564	1	4.5	1
MMSZ3V9B	6D1	3.82	3.98	5	90	564	1	2.7	1
MMSZ4V3B	6E1	4.21	4.39	5	90	564	1	2.7	1
MMSZ4V7B	6F1	4.61	4.79	5	80	470	1	2.7	2
MMSZ5V1B	6G1	5.00	5.20	5	60	451	1	1.8	2
MMSZ5V6B	6H1	5.49	5.71	5	40	376	1	0.9	2
MMSZ6V2B	6J1	6.08	6.32	5	10	141	1	2.7	4
MMSZ6V8B	6K1	6.66	6.94	5	15	75	1	1.8	4
MMSZ7V5B	6L1	7.35	7.65	5	15	75	1	0.9	5
MMSZ8V2B	6M1	8.04	8.36	5	15	75	1	0.63	5
MMSZ9V1B	6N1	8.92	9.28	5	15	94	1	0.45	6
MMSZ10VB	6P1	9.80	10.20	5	20	141	1	0.18	7
MMSZ11VB	6Q1	10.78	11.22	5	20	141	1	0.09	8
MMSZ12VB	6R1	11.76	12.24	5	25	141	1	0.09	8
MMSZ13VB	6S1	12.74	13.26	5	30	160	1	0.09	8
MMSZ15VB	6T1	14.70	15.30	5	30	188	1	0.045	10.5
MMSZ16VB	6U1	15.68	16.32	5	40	188	1	0.045	11.2
MMSZ18VB	6W1	17.64	18.36	5	45	212	1	0.045	12.6
MMSZ20VB	6X1	19.60	20.40	5	55	212	1	0.045	14.0
MMSZ22VB	6Y1	21.56	22.44	5	55	235	1	0.045	15.4
MMSZ24VB	6Z1	23.52	24.48	5	70	235	1	0.045	16.8
MMSZ27VB	7A1	26.46	27.54	2	80	282	0.5	0.045	18.9
MMSZ30VB	7B1	29.40	30.60	2	80	282	0.5	0.045	21.0
MMSZ33VB	7C1	32.34	33.66	2	80	306	0.5	0.045	23.0
MMSZ36VB	7D1	35.28	36.72	2	90	329	0.5	0.045	25.2
MMSZ39VB	7E1	38.22	39.78	2	130	329	0.5	0.045	27.3
MMSZ43VB	7F1	42.14	43.86	2	150	353	0.5	0.045	30.1
MMSZ47VB	7G1	46.06	47.94	2	170	353	0.5	0.045	33.0
MMSZ51VB	7H1	49.98	52.02	2	180	376	0.5	0.045	35.7
MMSZ56VB	7J1	54.88	57.12	2	200	400	0.5	0.045	39.2
MMSZ62VB	7K1	60.76	63.24	2	215	423	0.5	0.045	43.4
MMSZ68VB	7L1	66.64	69.36	2	240	447	0.5	0.045	47.6
MMSZ75VB	7M1	73.50	76.50	2	255	470	0.5	0.045	52.5

Note : The Zener Voltage (V_Z) is tested under pulse condition of 10ms.

RATINGS AND CHARACTERISTICS CURVES MMSZ2V4B THRU MMSZ75VB

Fig.1 - Power Derating Curve

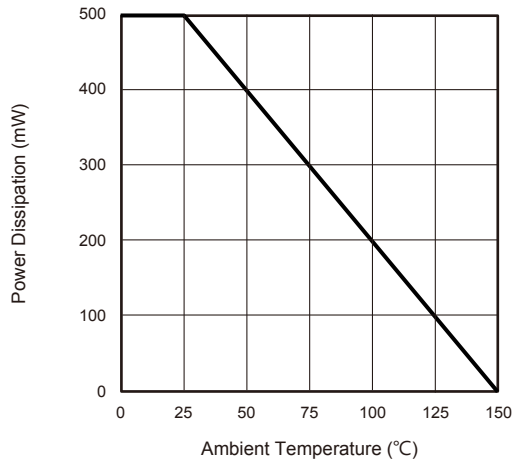


Fig.2 - Typical Instantaneous Forward Characteristics

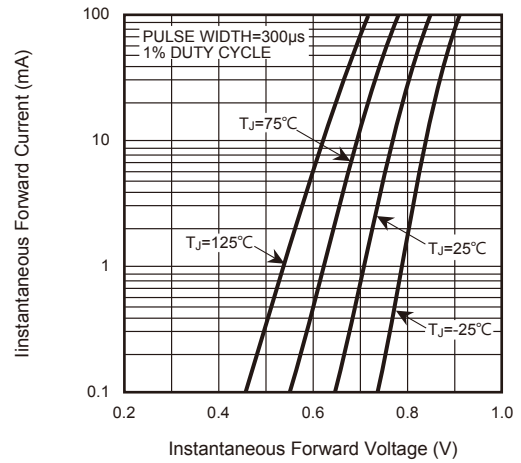


Fig.3 - Effect of Zener Current on Zener Impedance

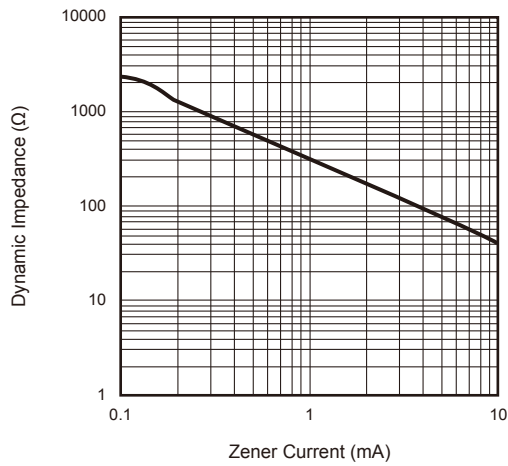


Fig.4 - V_R - I_R Characteristics

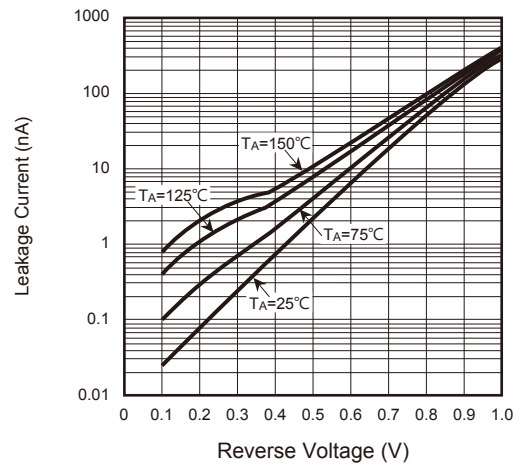


Fig.5 - V_R - C_T Characteristics

