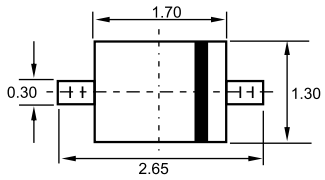
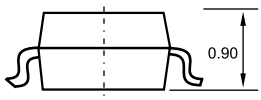
MM3Z2V4-MM3Z75

Surface Mount Zener Diode

V_Z : 2.4 - 75 Volts
P_D : 300 mWatts

SOD-323





Dimensions in inches and (millimeters)

Features

- Planar Die Construction
- Ultra-Small Surface Mount Package
- General Purpose
- Ideally suited for Automated Assembly Processes

Mechanical Data

- Case: SOD-323, Plastic
- Case Material - UL Flammability Classification Rating 94V-0
- Polarity: Cathode Band
- Weight: 0.004 grams (approx.

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Characteristic	Symbol	Value	Unit
Forward Voltage (Note 1) @ I_F = 10mA	V_F	0.9	V
Power Dissipation	P_d	300	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	625	°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150	°C

Notes: 1. Short duration pulse test used to minimize self-heating effect.

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Type Number	Marking Code	Zener Voltage				Zener Impedance			Leakage Current		@V_Z(Mv/k) @I_{ZT}		C @V_R=0, f=1MHz
		V_z(Volts)			@I_{ZT}	Z_{ZT}@I_{ZT}	Z_{ZK}@I_{ZK}		I_R	@V_R			
		Min	Nom	Max	mA	Ω	Ω	mA	μA	V	Min	Max	pF
MM3Z2V4	00	2.2	2.4	2.6	5	100	1000	0.5	50	1.0	-3.5	0	450
MM3Z2V7	01	2.5	2.7	2.9	5	100	1000	0.5	20	1.0	-3.5	0	450
MM3Z3V0	02	2.8	3.0	3.2	5	100	1000	0.5	10	1.0	-3.5	0	450
MM3Z3V3	05	3.1	3.3	3.5	5	95	1000	0.5	5	1.0	-3.5	0	450
MM3Z3V6	06	3.4	3.6	3.8	5	90	1000	0.5	5	1.0	-3.5	0	450
MM3Z3V9	07	3.7	3.9	4.1	5	90	1000	0.5	3	1.0	-3.5	-2.5	450
MM3Z4V3	08	4.0	4.3	4.6	5	90	1000	0.5	3	1.0	-3.5	0	450
MM3Z4V7	09	4.4	4.7	5.0	5	80	800	0.5	3	2.0	-3.5	0.2	260
MM3Z5V1	0A	4.8	5.1	5.4	5	60	500	0.5	2	2.0	-2.7	1.2	225
MM3Z5V6	0C	5.2	5.6	6.0	5	40	200	0.5	1	2.0	-2.0	2.5	200
MM3Z6V2	0E	5.8	6.2	6.6	5	10	100	0.5	3	4.0	0.4	3.7	185
MM3Z6V8	0F	6.4	6.8	7.2	5	15	160	0.5	2	4.0	1.2	4.5	155
MM3Z7V5	0G	7.0	7.5	7.9	5	15	160	0.5	1	5.0	2.5	5.3	140
MM3Z8V2	0H	7.7	8.2	8.7	5	15	160	0.5	0.7	5.0	3.2	6.2	135
MM3Z9V1	0K	8.5	9.1	9.6	5	15	160	0.5	0.2	7.0	3.8	7.0	130
MM3Z10	0L	9.4	10	10.6	5	20	160	0.5	0.1	8.0	4.5	8.0	130
MM3Z11	0M	10.4	11	11.6	5	20	160	0.5	0.1	8.0	5.4	9.0	130
MM3Z12	0N	11.4	12	12.7	5	25	80	0.5	0.1	8.0	6.0	10	130
MM3Z13	0P	12.35	13	13.65	5	30	80	0.5	0.1	8.0	7.0	11	120
MM3Z15	0T	14.25	15	15.75	5	30	80	0.5	0.05	10.5	9.2	13	110
MM3Z16	0U	15.2	16	16.8	5	40	80	0.5	0.05	11.2	10.4	14	105
MM3Z18	0W	17.1	18	18.9	5	45	80	0.5	0.05	12.6	12.4	16	100
MM3Z20	0Z	18.8	20	21.2	5	55	100	0.5	0.05	14.0	14.4	18	85
MM3Z22	10	20.9	22	23.1	5	55	100	0.5	0.05	15.4	16.4	20	85
MM3Z24	11	22.8	24	25.2	5	70	120	0.5	0.05	16.8	18.4	22	80
MM3Z27	12	25.1	27	28.9	2	80	300	0.5	0.05	18.9	21.4	25.3	70
MM3Z30	14	28	30	32	2	80	300	0.5	0.05	21.0	24.4	29.4	70
MM3Z33	18	31	33	35	2	80	300	0.5	0.05	23.2	27.4	33.4	70
MM3Z36	19	34	36	38	2	90	500	0.5	0.05	25.2	30.4	37.4	70
MM3Z39	20	37	39	41	2	130	500	0.5	0.05	27.3	33.4	41.2	45
MM3Z43	21	40	43	46	2	150	500	0.5	0.05	30.1	37.6	46.6	40
MM3Z47	1A	44	47	50	2	170	500	0.5	0.05	32.9	42.0	51.8	40
MM3Z51	1C	48	51	54	2	180	500	0.5	0.05	35.7	46.6	57.2	40
MM3Z56	1D	52	56	60	2	200	500	0.5	0.05	39.2	52.2	63.8	40
MM3Z62	1E	58	62	66	2	215	500	0.5	0.05	43.4	58.8	71.6	35

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		V_z(Volts)			@I_{ZT}	Z_{ZT}@I_{ZT}	Z_{ZK}@I_{ZK}		I_R	@V_R			
		Nom	Min	Max	mA	Ω	Ω	mA	μA	V	Min	Max	pF
MM3Z68	1F	64	68	72	2	240	500	0.5	0.05	47.6	65.6	79.8	35
MM3Z75	1G	70	75	79	2	255	500	0.5	0.05	52.5	73.4	88.6	35

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

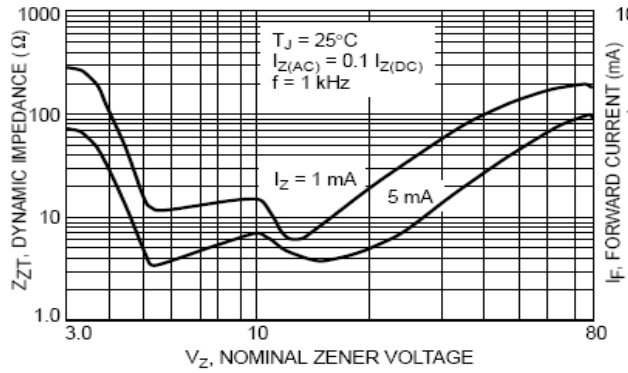

Figure 1. Effect of Zener Voltage on Zener Impedance

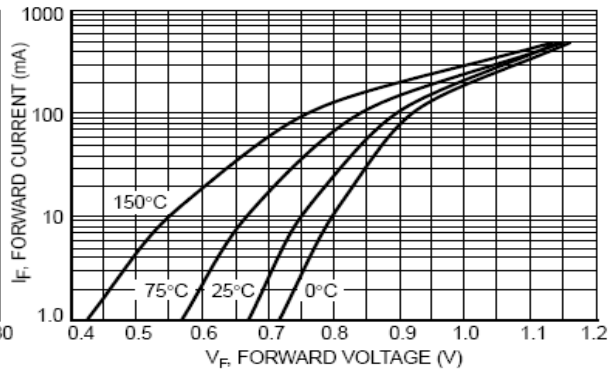

Figure 2. Typical Forward Voltage

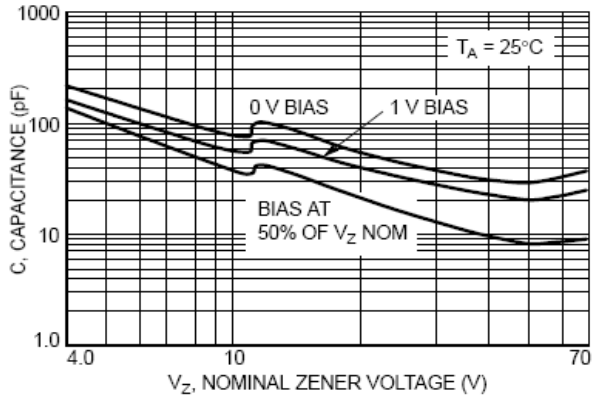

Figure 3. Typical Capacitance

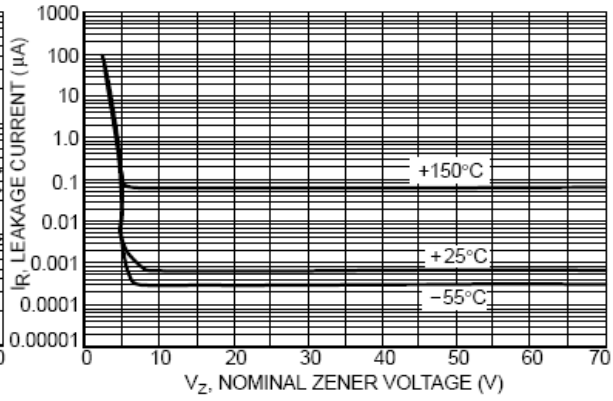

Figure 4. Typical Leakage Current

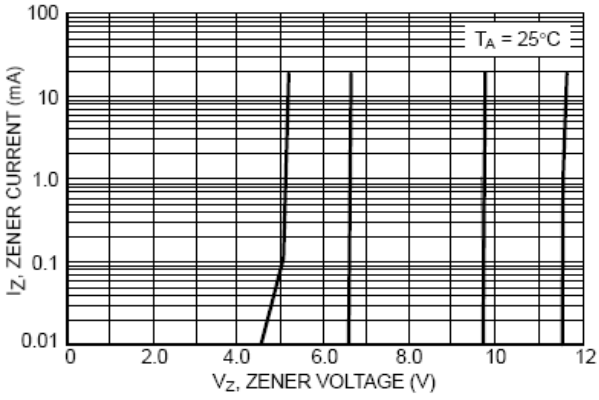

Figure 5. Zener Voltage versus Zener Current (V_Z Up to 12 V)

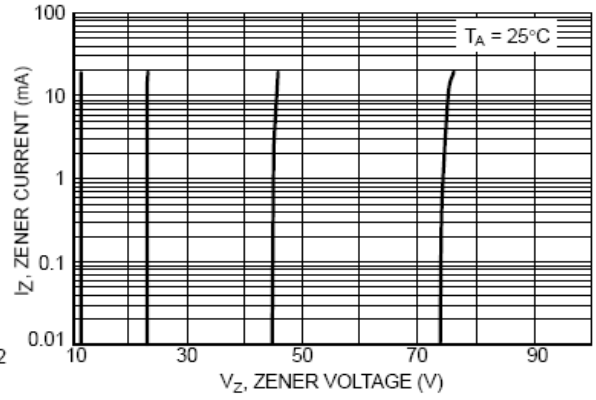

Figure 6. Zener Voltage versus Zener Current (12 V to 75 V)

PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SOD-323	3000/REEL	180000	44X44X22	9.00	8.00