

Features

- Low Zener Impedance
- Power Dissipation of 200mW
- High Stability and High Reliability

Mechanical Data

- DFN1006 Small Outline Plastic Package
- Color band denotes cathode end
- Mounting Position: Any

Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Power Dissipation	Pd	200 ₁₎	mW
Forward Voltage @IF=10mA	V _F	1 ₂₎	V
Storage temperature range	Ts	-55 - +150	° C

- 1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm²
 2) Short duration test pulse used to minimize self-heating effect

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Device Type	V _Z @ I _{ZT} (Volts)			I _{ZT} (mA)	Z _{ZT} @I _{ZT} (Ω) Max	I _{ZK} (mA)	Z _{ZK} @I _{ZK} (Ω) Max	I _R @V _R (uA) Max	V _R (V)
	Min	Nom	Max						
MM8Z2V0C	1.90	2.0	2.10	5	100	1	564	120	0.5
MM8Z2V2C	2.09	2.2	2.31	5	100	1	564	120	0.7
MM8Z2V4C	2.2	2.4	2.6	5	100	1	1000	50	1
MM8Z2V7C	2.5	2.7	2.9	5	100	1	1000	20	1
MM8Z3V0C	2.8	3.0	3.2	5	100	1	1000	10	1
MM8Z3V3C	3.1	3.3	3.5	5	95	1	1000	5	1
MM8Z3V6C	3.4	3.6	3.8	5	90	1	1000	5	1
MM8Z3V9C	3.7	3.9	4.1	5	90	1	1000	3	1
MM8Z4V3C	4.0	4.3	4.6	5	90	1	1000	3	1
MM8Z4V7C	4.4	4.7	5.0	5	80	1	800	3	2
MM8Z5V1C	4.8	5.1	5.4	5	60	1	500	2	2
MM8Z5V6C	5.2	5.6	6.0	5	40	1	200	1	2
MM8Z6V2C	5.8	6.2	6.6	5	10	1	100	3	4
MM8Z6V8C	6.4	6.8	7.2	5	15	1	160	2	4
MM8Z7V5C	7.0	7.5	7.9	5	15	1	160	1	5
MM8Z8V2C	7.7	8.2	8.7	5	15	1	160	0.7	5

Device Type	$V_Z @ I_{ZT}$ (Volts)			I_{ZT} (mA)	$Z_{ZT}@I_{ZT}$ (Ω) Max	I_{ZK} (mA)	$Z_{ZK}@I_{ZK}$ (Ω) Max	$I_R@V_R$ (μ A) Max	V_R (V)
	Min	Nom	Max						
MM8Z9V1C	8.5	9.1	9.6	5	15	1	160	0.2	7
MM8Z10VC	9.4	10	10.6	5	20	1	160	0.1	8
MM8Z11VC	10.4	11	11.6	5	20	1	160	0.1	8
MM8Z12VC	11.4	12	12.7	5	25	1	80	0.1	8
MM8Z13VC	12.4	13	14.1	5	30	1	80	0.1	8
MM8Z15VC	14.3	15	15.8	5	30	1	80	0.05	10.5
MM8Z16VC	15.3	16	17.1	5	40	1	80	0.05	11.2
MM8Z18VC	16.8	18	19.1	5	45	1	80	0.05	12.6
MM8Z20VC	18.8	20	21.2	5	55	1	100	0.05	14
MM8Z22VC	20.8	22	23.3	5	55	1	100	0.05	15.4
MM8Z24VC	22.8	24	25.6	5	70	1	120	0.05	16.8
MM8Z27VC	25.1	27	28.9	2	80	0.5	300	0.05	18.9
MM8Z30VC	28	30	32	2	80	0.5	300	0.05	21
MM8Z33VC	31	33	35	2	80	0.5	300	0.05	23.2
MM8Z36VC	34	36	38	2	90	0.5	500	0.05	25.2
MM8Z39VC	37	39	41	2	130	0.5	500	0.05	27.3
MM8Z43VC	40	43	46	2	150	0.5	500	0.05	30.1
MM8Z47VC	44	47	50	2	170	0.5	500	0.05	32.9
MM8Z51VC	48	51	54	2	180	0.5	500	0.05	35.7
MM8Z56VC	52	56	60	2	200	0.5	500	0.05	39.2
MM8Z62VC	58	62	66	2	215	0.5	500	0.05	43.4
MM8Z68VC	64	68	72	2	240	0.5	500	0.05	47.6
MM8Z75VC	70	75	79	2	255	0.5	500	0.05	52.5

Notes:

1. The Zener Voltage (V_Z) is tested under pulse condition of 10mS.
2. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong Electronics representative.
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_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK} .

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

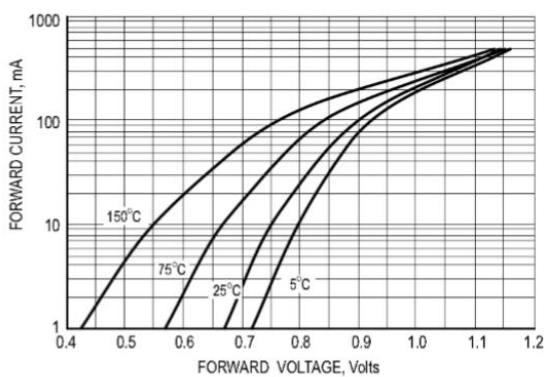


Fig.1 TYPICAL FORWARD VOLTAGE

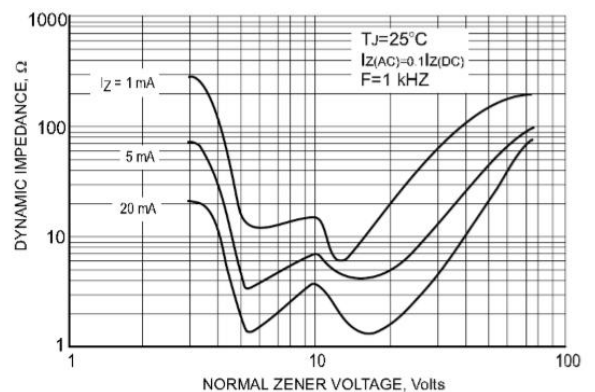


Fig.2 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

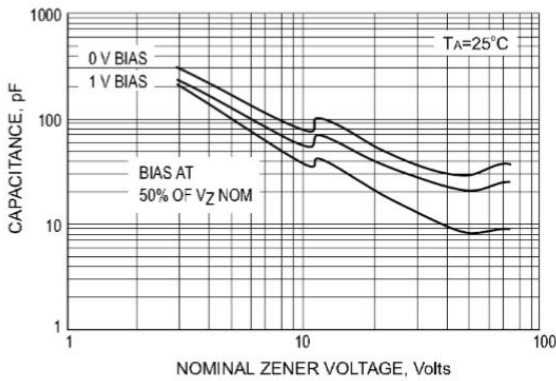


Fig.4 TYPICAL CAPACITANCE

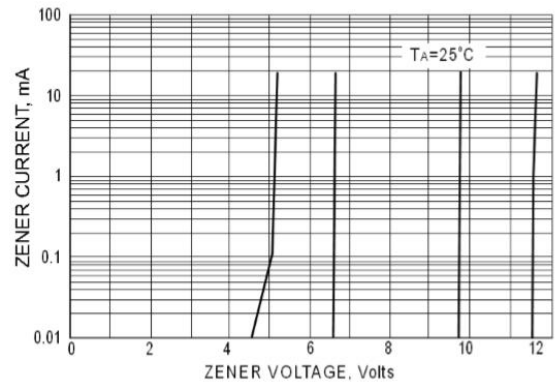


Fig.5 ZENER BREAKDOWN CHARACTERISTICS

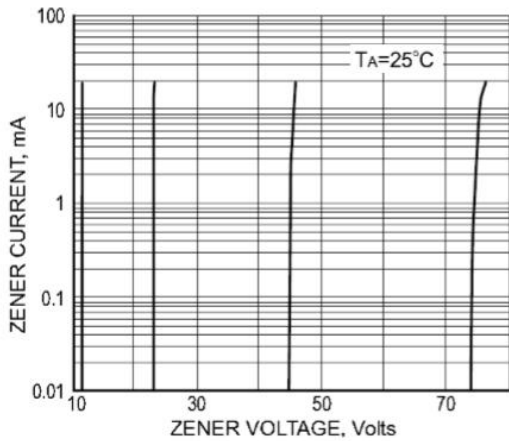


Fig.6 ZENER BREAKDOWN CHARACTERISTICS

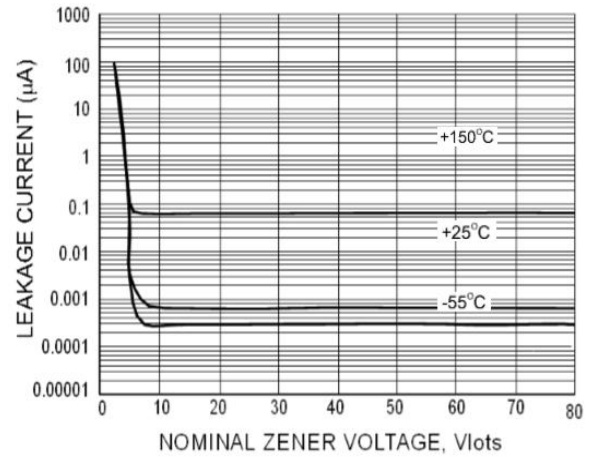
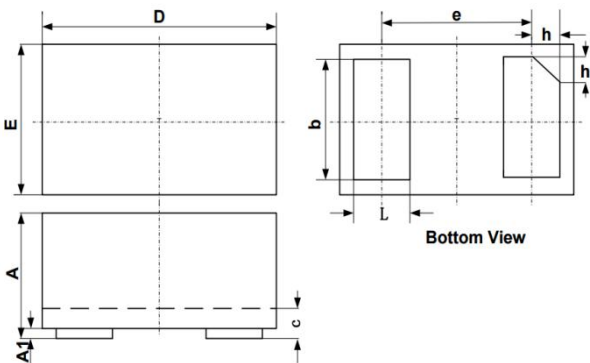


Fig.7 TYPICAL LEAKAGE CURRENT

Package Mechanical Data(mm)



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65 BSC			0.026 BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.20	0.25	0.30	0.008	0.010	0.012
h	0.07	0.12	0.17	0.003	0.005	0.007



Leading Circuit Protection
Products and Solutions

MM8ZXXC

DFN1006 Plastic-Encapsulate Zener Diode

Contact Information

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