

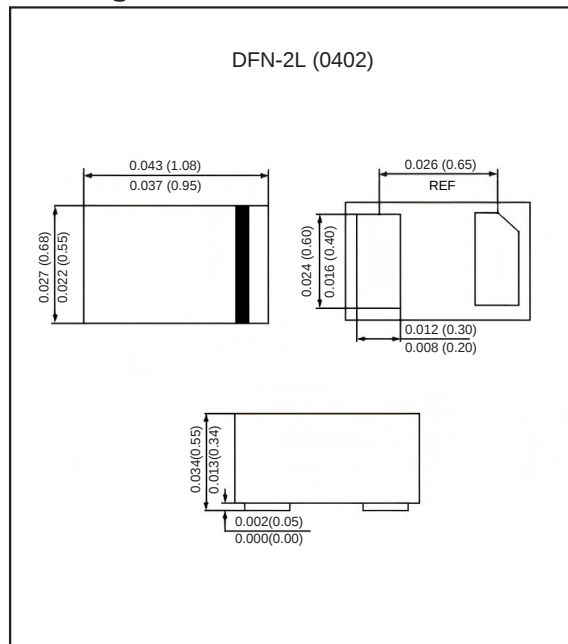
Features

- 125mW Power Dissipation
- Designed for mounting on small surface
- High Reliability
- Extremely thin/leadless package
- Compliant to Halogen-free

Mechanical data

- Case : DFN-2L(0402)
- Mounting Position : Any
- Polarity : Cathode line denotes the cathode end

Package outline



Maximum ratings (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 10 \text{ mA}$	V_F			0.9	V
Power dissipation		P_D			125	mW
Peak forward surge current	8.3 ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			2	A
Peak ESD voltage capability	IEC 61000-4-2	V_{PV}			8	kV
Operating junction temperature range		T_J	-55		+150	$^{\circ}\text{C}$
Storage temperature range		T_{STG}	-55		+150	$^{\circ}\text{C}$

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

Device	Marking	Zener Voltage Range				Maximum Zener Impedance ³⁾			Maximum Reverse Current		Typical Temperature coefficient @ IZTC=mV/°C		Test Current IZTC
		Vz@Izt			Izt	Zzt@Izt	Zzk@Izk	Izk	IR	VR	Min	Max	
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	uA	V			mA
MM42Z2V0B	2WY	2.0	1.96	2.04	5	150	600	1.0	100	1.0	-3.5	0	5
MM42Z2V4B	2WX	2.4	2.352	2.448	5	100	600	1.0	50	1.0	-3.5	0	5
MM42Z2V7B	2W1	2.7	2.646	2.754	5	100	600	1.0	20	1.0	-3.5	0	5
MM42Z3V0B	2W2	3.0	2.94	3.06	5	95	600	1.0	10	1.0	-3.5	0	5
MM42Z3V3B	2W3	3.3	3.234	3.366	5	95	600	1.0	5	1.0	-3.5	0	5
MM42Z3V6B	2W4	3.6	3.528	3.672	5	90	600	1.0	5	1.0	-3.5	0	5
MM42Z3V9B	2W5	3.9	3.822	3.978	5	90	600	1.0	3	1.0	-3.5	0	5
MM42Z4V3B	2W6	4.3	4.214	4.386	5	90	600	1.0	3	1.0	-3.5	0	5
MM42Z4V7B	2W7	4.7	4.606	4.794	5	80	500	1.0	3	2.0	-3.5	0.2	5
MM42Z5V1B	2W8	5.1	4.998	5.202	5	60	480	1.0	2	2.0	-2.7	1.2	5
MM42Z5V6B	2W9	5.6	5.488	5.712	5	40	400	1.0	1	2.0	-2.0	2.5	5
MM42Z6V2B	2WA	6.2	6.076	6.324	5	10	150	1.0	3	4.0	0.4	3.7	5
MM42Z6V8B	2WB	6.8	6.664	6.936	5	15	80	1.0	2	4.0	1.2	4.5	5
MM42Z7V5B	2WC	7.5	7.35	7.65	5	15	80	1.0	1	5.0	2.5	5.3	5
MM42Z8V2B	2WD	8.2	8.036	8.364	5	15	80	1.0	0.7	5.0	3.2	6.2	5
MM42Z9V1B	2WE	9.1	8.918	9.282	5	15	100	1.0	0.5	6.0	3.8	7.0	5
MM42Z10VB	2WF	10	9.8	10.2	5	20	150	1.0	0.2	7.0	4.5	8.0	5
MM42Z11VB	2WG	11	10.78	11.22	5	20	150	1.0	0.1	8.0	5.4	9.0	5
MM42Z12VB	2WH	12	11.76	12.24	5	25	150	1.0	0.1	8.0	6.0	10.0	5
MM42Z13VB	2WI	13	12.74	13.26	5	30	170	1.0	0.1	8.0	7.0	11.0	5
MM42Z15VB	2WJ	15	14.7	15.3	5	30	200	1.0	0.1	10.5	9.2	13.0	5
MM42Z16VB	2WK	16	15.68	16.32	5	40	200	1.0	0.1	11.2	10.4	14.0	5
MM42Z18VB	2WL	18	17.64	18.36	5	45	225	1.0	0.1	12.6	12.4	16.0	5
MM42Z20VB	2WM	20	19.6	20.4	5	55	225	1.0	0.1	14.0	14.4	18.0	5
MM42Z22VB	2WN	22	21.56	22.44	5	55	250	1.0	0.1	15.4	16.4	20.0	5
MM42Z24VB	2WO	24	23.52	24.48	5	70	250	1.0	0.1	16.8	18.4	22.0	5
MM42Z27VB	2WP	27	26.46	27.54	2	80	300	0.5	0.1	18.9	21.4	25.3	2
MM42Z30VB	2WQ	30	29.4	30.6	2	80	300	0.5	0.1	21.0	24.4	29.4	2
MM42Z33VB	2WR	33	32.34	33.66	2	80	325	0.5	0.1	23.1	27.4	33.4	2
MM42Z36VB	2WS	36	35.28	36.72	2	90	350	0.5	0.1	25.2	30.4	37.4	2
MM42Z39VB	2WT	39	38.22	39.78	2	130	350	0.5	0.1	27.3	33.4	41.2	2
MM42Z43VB	2WU	43	42.14	43.86	2	100	700	1.0	0.1	32.0	10.0	12.0	5
MM42Z47VB	2WV	47	46.06	47.94	2	100	750	1.0	0.1	35.0	10.0	12.0	5
MM42Z51VB	2WW	51	49.98	52.02	2	100	750	1.0	0.1	38.0	10.0	12.0	5
MM42Z56VB	2XW	56	54.88	57.12	2	135	700	1.0	0.1	39.0	10.0	12.0	5
MM42Z62VB	26E	62	60.76	63.24	2	200	1000	1.0	0.2	47.0	10.0	12.0	5
MM42Z68VB	26F	68	66.64	69.36	2	250	1000	1.0	0.2	52.0	10.0	12.0	5
MM42Z75VB	26H	75	73.5	76.5	2	300	1000	1.0	0.2	57	10.0	12.0	5

Rating and characteristic curves

Fig.1 TEMPERATURE COEFFICIENTS

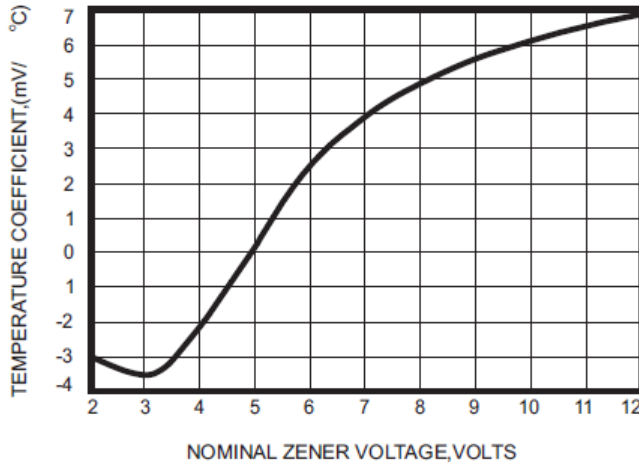


Fig.2 TEMPERATURE COEFFICIENTS

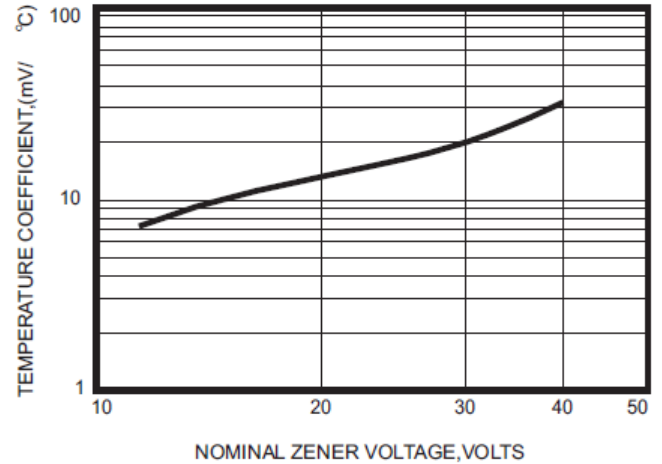


Fig.3 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

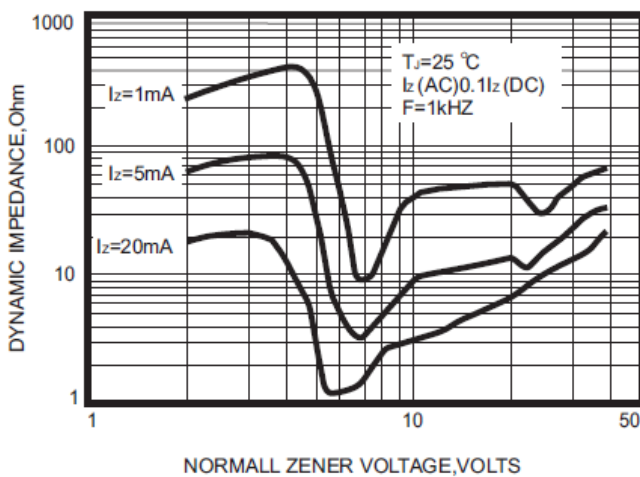


Fig.4 TYPICAL FORWARD VOLTAGE

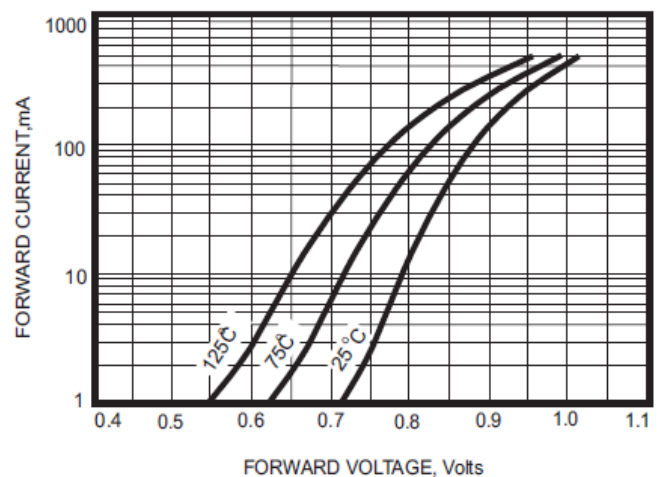


Fig.5 TYPICAL LEAKAGE CURRENT

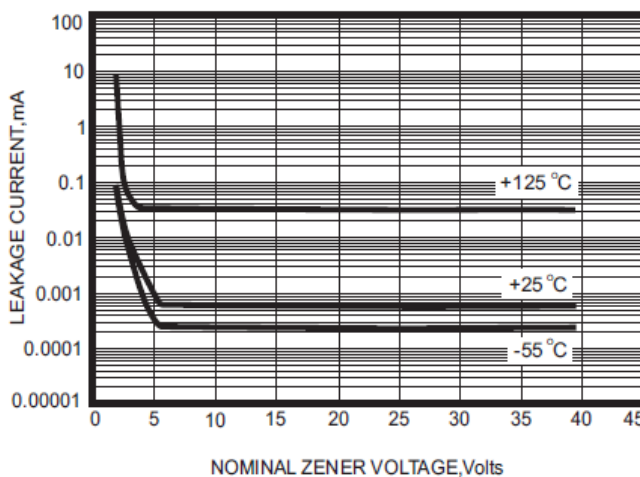
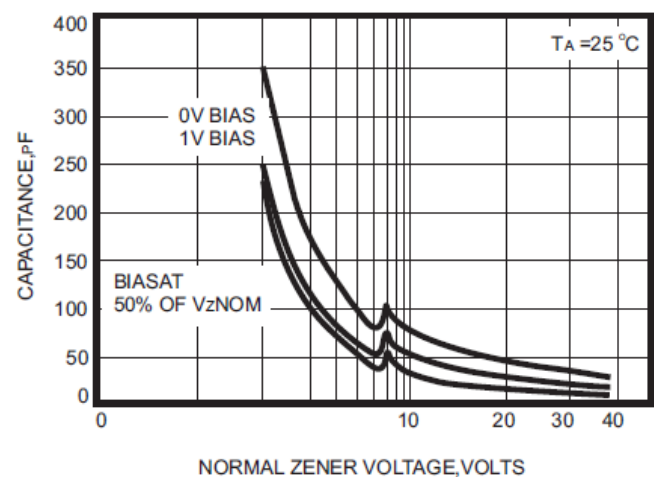


Fig.6 TYPICAL CAPACITANCE



Rating and characteristic curves

Fig.7 ZENER VOLTAGE VERSUS ZENER CURRENT

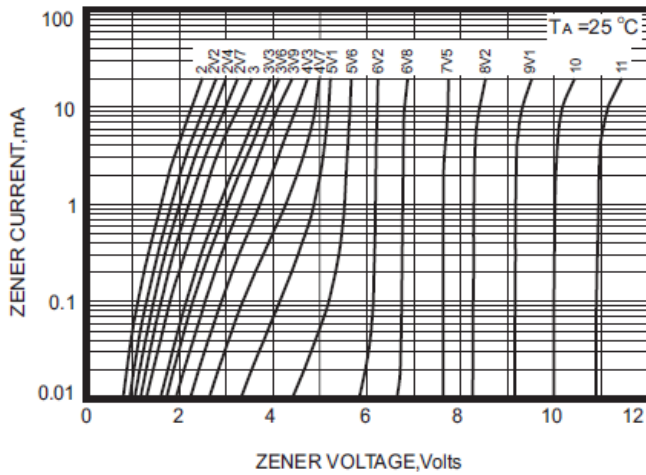


Fig.8 ZENER VOLTAGE VERSUS ZENER CURRENT

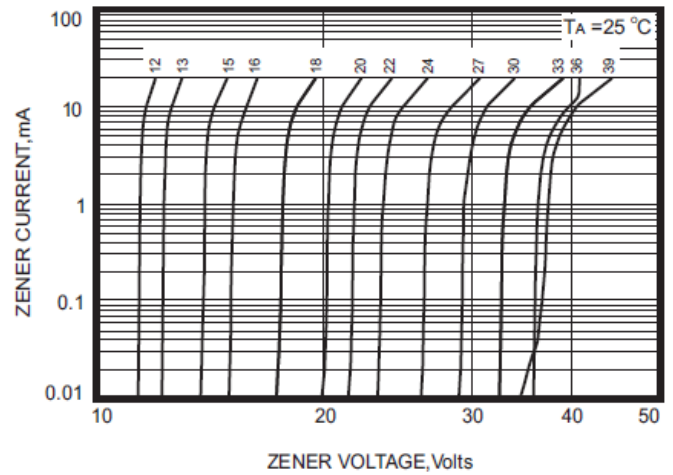
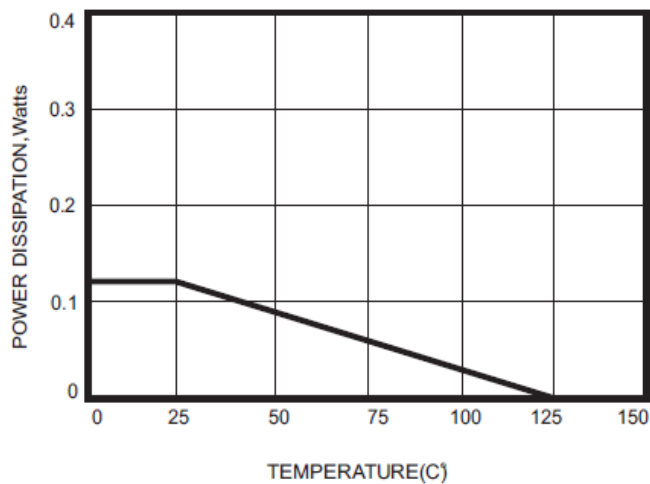


Fig.9 STEADY STATE POWER DERATING



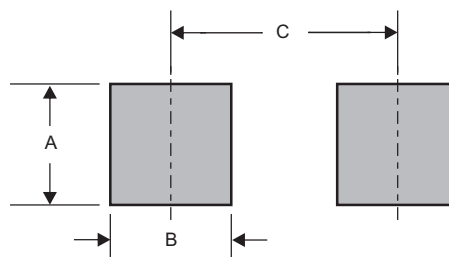
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking
MM42ZXXB Series	Page2

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
DFN-2L	0.020 (0.50)	0.014 (0.35)	0.026 (0.65)