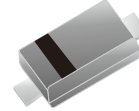


MM3Z2V0CW-P2-HF Thru. MM3Z75VCW-P2-HF

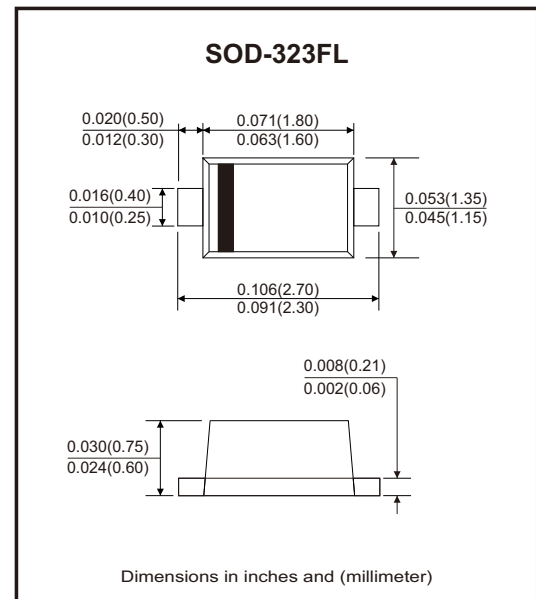
RoHS Device
Halogen Free

**Features**

- Wide voltage range selection: 2V~75V.
- Tight voltage tolerance: $\pm 5\%$.
- Constant voltage control.

Mechanical data

- Case: SOD-323FL, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

**Circuit Diagram****Maximum Ratings** ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Power dissipation	P_D	200	mW
Junction temperature	T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$
Maximum regulator current	I_{ZM}	P_D/V_Z	mA

Electrical Characteristics (TA=25°C unless otherwise noted)

Part Number	Zener Voltage (Pulse width =10ms)				Maximum Zener Impedance			Maximum Reverse Current		Marking Code
	V _Z @ I _{ZT}			I _{ZT}	Z _{zT} @I _{ZT}	Z _{zK} @I _{ZK}	I _{ZK}	I _R @ V _R		
	Min(V)	Typ(V)	Max(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	
MM3Z2V0CW-P2-HF	1.90	2.0	2.10	5.0	100	600	1.0	120	1.0	2v0
MM3Z2V2CW-P2-HF	2.09	2.2	2.31	5.0	100	600	1.0	120	1.0	2v2
MM3Z2V4CW-P2-HF	2.20	2.4	2.60	5.0	90	600	1.0	120	1.0	2v4
MM3Z2V7CW-P2-HF	2.50	2.7	2.90	5.0	90	600	1.0	100	1.0	2v7
MM3Z3V0CW-P2-HF	2.80	3.0	3.20	5.0	85	600	1.0	50	1.0	3v0
MM3Z3V3CW-P2-HF	3.10	3.3	3.50	5.0	85	600	1.0	20	1.0	3v3
MM3Z3V6CW-P2-HF	3.40	3.6	3.80	5.0	85	600	1.0	10	1.0	3v6
MM3Z3V9CW-P2-HF	3.70	3.9	4.10	5.0	85	600	1.0	5.0	1.0	3v9
MM3Z4V3CW-P2-HF	4.00	4.3	4.60	5.0	80	600	1.0	5.0	1.0	4v3
MM3Z4V7CW-P2-HF	4.40	4.7	5.00	5.0	70	500	1.0	2.0	1.0	4v7
MM3Z5V1CW-P2-HF	4.80	5.1	5.40	5.0	50	480	1.0	2.0	1.5	5v1
MM3Z5V6CW-P2-HF	5.32	5.6	5.88	5.0	30	400	1.0	1.0	2.0	5v6
MM3Z6V2CW-P2-HF	5.89	6.2	6.51	5.0	10	150	1.0	1.0	3.0	6v2
MM3Z6V8CW-P2-HF	6.46	6.8	7.14	5.0	10	80	1.0	0.5	4.0	6v8
MM3Z7V5CW-P2-HF	7.11	7.5	7.86	5.0	10	50	1.0	0.5	5.0	7v5
MM3Z8V2CW-P2-HF	7.79	8.2	8.61	5.0	10	50	1.0	0.5	6.0	8v2
MM3Z9V1CW-P2-HF	8.65	9.1	9.56	5.0	10	50	1.0	0.5	7.0	9v1
MM3Z10VCW-P2-HF	9.50	10	10.50	5.0	15	70	1.0	0.1	7.5	10
MM3Z11VCW-P2-HF	10.45	11	11.55	5.0	20	70	1.0	0.1	8.0	11
MM3Z12VCW-P2-HF	11.40	12	12.60	5.0	20	90	1.0	0.1	9.0	12
MM3Z13VCW-P2-HF	12.35	13	13.65	5.0	26	110	1.0	0.1	10	13
MM3Z15VCW-P2-HF	14.25	15	15.75	5.0	30	110	1.0	0.1	11	15
MM3Z16VCW-P2-HF	15.20	16	16.80	5.0	40	170	1.0	0.1	12	16
MM3Z18VCW-P2-HF	17.10	18	18.90	5.0	45	170	1.0	0.1	14	18
MM3Z20VCW-P2-HF	19.00	20	21.00	5.0	55	220	1.0	0.1	15	20
MM3Z22VCW-P2-HF	20.90	22	23.10	5.0	55	220	1.0	0.1	17	22
MM3Z24VCW-P2-HF	22.80	24	25.20	5.0	70	220	1.0	0.1	19	24
MM3Z27VCW-P2-HF	25.65	27	28.35	5.0	80	220	1.0	0.1	20	27
MM3Z30VCW-P2-HF	28.50	30	31.50	5.0	80	220	1.0	0.1	22	30

Electrical Characteristics (TA=25°C unless otherwise noted)

Part Number	Zener Voltage (Pulse width =10ms)				Maximum Zener Impedance			Maximum Reverse Current		Marking Code
	V _Z @ I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R @ V _R		
	Min(V)	Typ(V)	Max(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	
MM3Z33VCW-P2-HF	31.35	33	34.65	5.0	80	220	1.0	0.1	24	33
MM3Z36VCW-P2-HF	34.20	36	37.80	5.0	80	220	1.0	0.1	27	36
MM3Z39VCW-P2-HF	37.05	39	40.95	2.5	90	500	0.5	0.1	29	39
MM3Z43VCW-P2-HF	40.85	43	45.15	2.5	90	600	0.5	0.1	32	43
MM3Z47VCW-P2-HF	44.65	47	49.35	2.5	110	700	0.5	0.1	35	47
MM3Z51VCW-P2-HF	48.45	51	53.55	2.5	125	700	0.5	0.1	38	51
MM3Z56VCW-P2-HF	53.20	56	58.80	2.5	135	1000	0.5	0.1	42	56
MM3Z62VCW-P2-HF	58.90	62	65.10	2.5	150	1000	0.5	0.1	47	62
MM3Z68VCW-P2-HF	64.60	68	71.40	2.5	200	1000	0.5	0.1	51	68
MM3Z75VCW-P2-HF	71.25	75	78.75	2.5	250	1500	0.5	0.1	56	75

Typical Rating and Characteristic Curves (MM3ZxxxCW-P2-HF)

Fig.1 - Zener Breakdown Characteristic

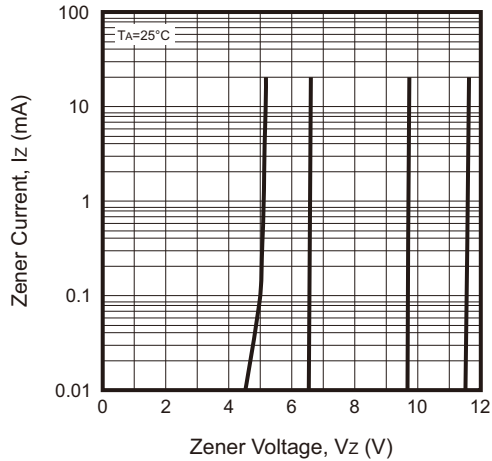


Fig.2 - Zener Breakdown Characteristic

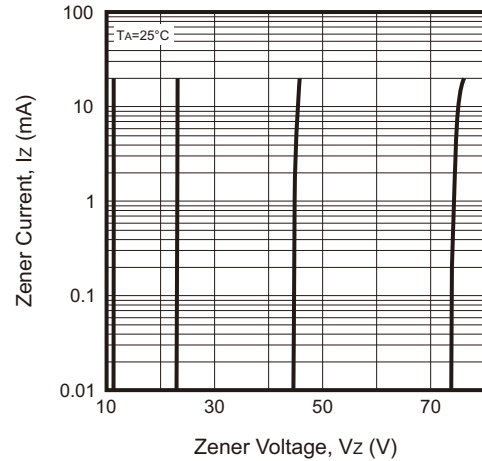


Fig.3 - Typical Forward Voltage

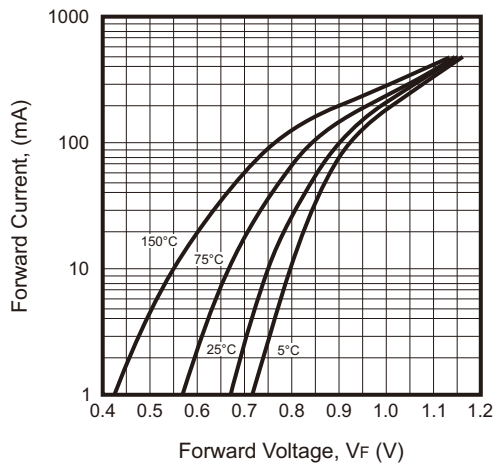


Fig.4 - Effect of Zener Voltage on Zener Impedance

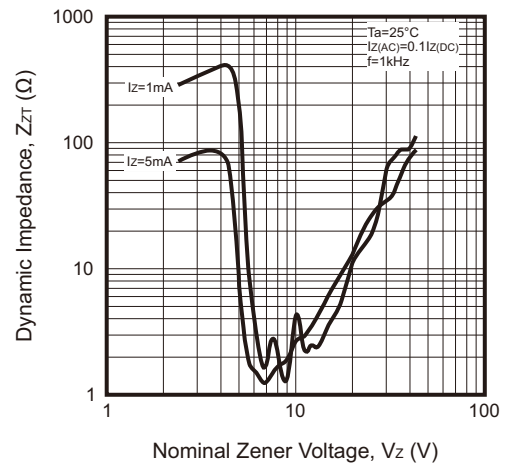


Fig.5 - Typical Capacitance

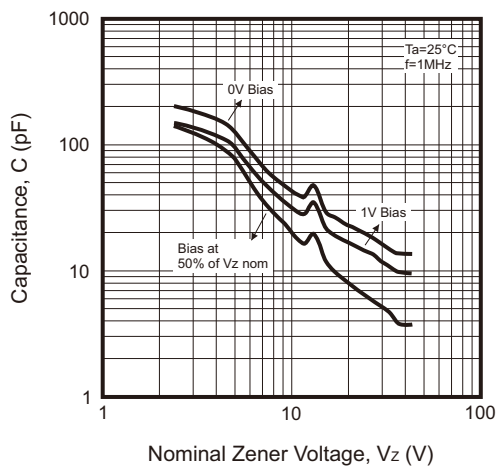
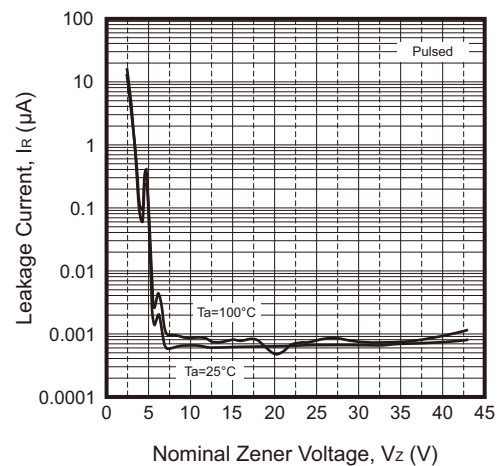
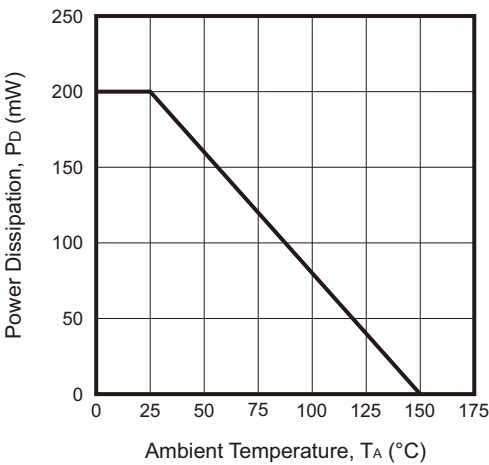


Fig.6 - Typical Leakage Current

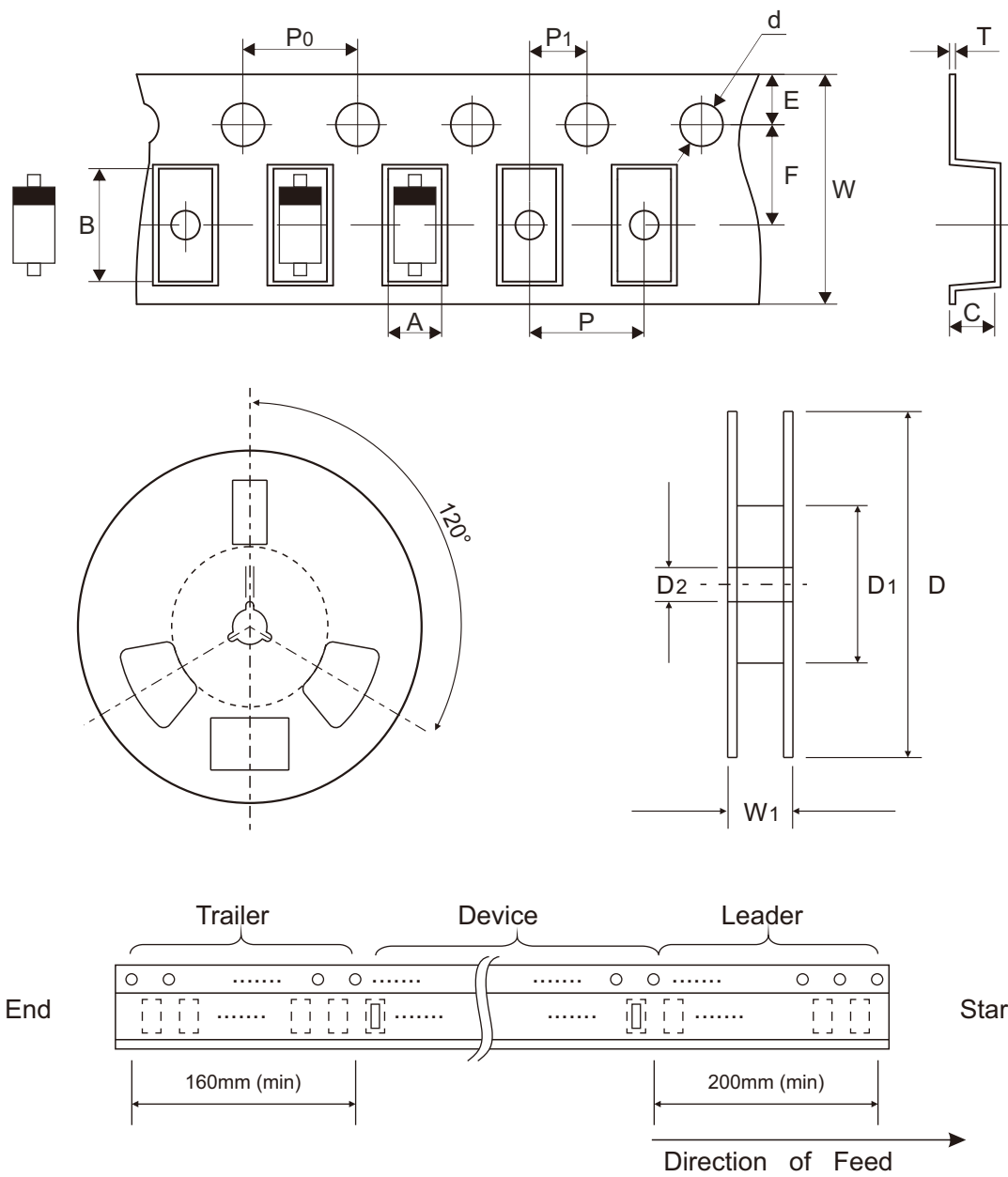


Typical Rating and Characteristic Curves (MM3ZxxxCW-P2-HF)

Fig.7 - Power Dissipation vs Ambient Temperature



Reel Taping Specification



SOD-323FL	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.37 ± 0.07	2.75 ± 0.07	0.85 ± 0.10	1.60 ± 0.05	178.00 ± 2.00	50.00 ± 0.50	13.00 ± 0.25
	(inch)	0.054 ± 0.003	0.108 ± 0.003	0.033 ± 0.004	0.063 ± 0.002	7.008 ± 0.079	1.969 ± 0.020	0.512 ± 0.010

SOD-323FL	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.05	3.50 ± 0.05	4.00 ± 0.05	4.00 ± 0.05	2.00 ± 0.05	0.20 ± 0.02	8.00 ± 2.00	9.50 ± 0.50
	(inch)	0.069 ± 0.002	0.138 ± 0.002	0.157 ± 0.002	0.157 ± 0.002	0.079 ± 0.002	0.008 ± 0.001	0.315 ± 0.079	0.374 ± 0.020

Marking Code

Part Number	Marking Code
MM3ZxxxCW-P2-HF	See Page 2~3

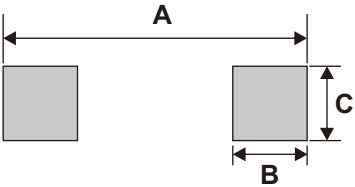


■ = Cathode band

XX/XXX = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOD-323FL	
	(mm)	(inch)
A	3.20 Max	0.126 Max
B	0.80	0.031
C	0.80	0.031



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-323FL	3,000	7