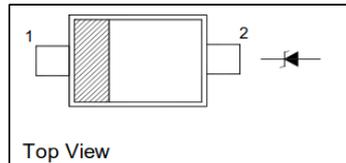


SILICON PLANAR ZENER DIODES



PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



MM3Z2V0~MM3Z75-AH
SOD-323
PLASTIC PACKAGE

FEATURES

- Total power dissipation : max. 300 mW
- Small plastic package suitable for surface mounted design
- Tolerance approximately $\pm 5\%$
- AEC-Q101 Qualified
- Halogen and Antimony Free(HAF), RoHS compliant

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P_{tot}	300	mW
Operating Junction Temperature Range	T_j	-40 to 150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	$^\circ\text{C}$

THERMAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

PARAMETER	SYMBOL	MAX	UNIT
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Forward Voltage at $I_F=10\text{mA}$	V_F	0.9	V

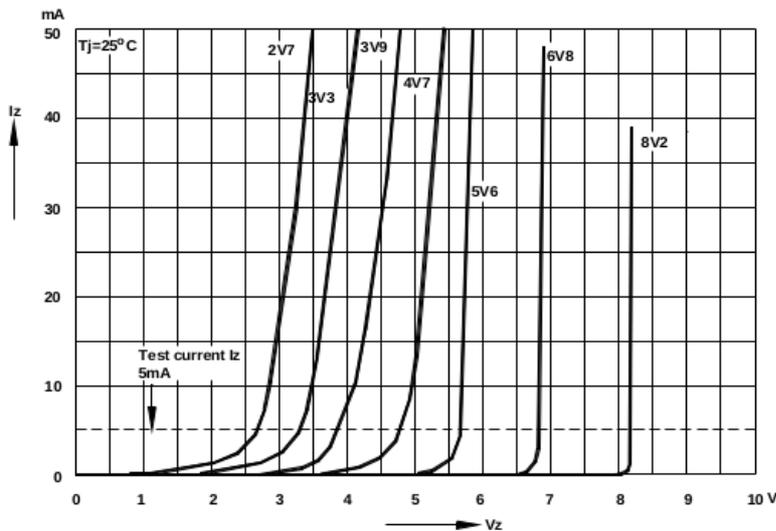
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

TYPE	MARKING CODE	ZENNER VOLTAGE RANGE ¹⁾			DYNAMIC IMPEDANCE		REVERSE LEAKAGE CURRENT	
		V_{znom}	V_{ZT}	at I_{ZT}	Z_{ZT}	at I_{ZT}	I_R	at V_R
		(V)	(V)	(mA)	Max. (Ω)	(mA)	Max. (μA)	(V)
MM3Z2V0	B0	2.0	1.8~2.15	5	100	5	120	0.5
MM3Z2V2	C0	2.2	2.06~2.33	5	100	5	120	0.7
MM3Z2V4	1C	2.4	2.28~2.56	5	100	5	120	1
MM3Z2V7	1D	2.7	2.5~2.9	5	110	5	150	1
MM3Z3V0	1E	3.0	2.8~3.2	5	120	5	50	1
MM3Z3V3	1F	3.3	3.1~3.5	5	130	5	20	1
MM3Z3V6	1H	3.6	3.4~3.8	5	130	5	10	1
MM3Z3V9	1J	3.9	3.7~4.1	5	130	5	5	1
MM3Z4V3	1K	4.3	4~4.6	5	130	5	5	1
MM3Z4V7	1M	4.7	4.4~5	5	130	5	2	1
MM3Z5V1	1N	5.1	4.8~5.4	5	130	5	2	1.5
MM3Z5V6	1P	5.6	5.2~6	5	80	5	1	2.5
MM3Z6V2	1R	6.2	5.8~6.6	5	50	5	1	3
MM3Z6V8	1X	6.8	6.4~7.2	5	30	5	0.5	3.5
MM3Z7V5	1Y	7.5	7~7.9	5	30	5	0.5	4

TYPE	MARKING CODE	ZENNER VOLTAGE RANGE ¹⁾			DYNAMIC IMPEDANCE		REVERSE LEAKAGE CURRENT	
		V_{znom}	V_{zT}	at I_{zT}	Z_{zT}	at I_{zT}	I_R	at V_R
		(V)	(V)	(mA)	Max. (Ω)	(mA)	Max. (μ A)	(V)
MM3Z8V2	1Z	8.2	7.7~8.7	5	30	5	0.5	5
MM3Z9V1	2A	9.1	8.5~9.6	5	30	5	0.5	6
MM3Z10	2B	10	9.4~10.6	5	30	5	0.1	7
MM3Z11	2C	11	10.4~11.6	5	30	5	0.1	8
MM3Z12	2D	12	11.4~12.7	5	35	5	0.1	9
MM3Z13	2E	13	12.4~14.1	5	35	5	0.1	10
MM3Z15	2F	15	13.8~15.6	5	40	5	0.1	11
MM3Z16	2H	16	15.3~17.1	5	40	5	0.1	12
MM3Z18	2J	18	16.8~19.1	5	45	5	0.1	13
MM3Z20	2K	20	18.8~21.2	5	50	5	0.1	15
MM3Z22	2M	22	20.8~23.3	5	55	5	0.1	17
MM3Z24	2N	24	22.8~25.6	5	60	5	0.1	19
MM3Z27	2P	27	25.1~28.9	2	70	2	0.1	21
MM3Z30	2R	30	28~32	2	80	2	0.1	23
MM3Z33	2X	33	31~35	2	80	2	0.1	25
MM3Z36	2Y	36	34~38	2	90	2	0.1	27
MM3Z39	2Z	39	37~41	2	100	2	0.1	30
MM3Z43	3A	43	40~46	2	130	2	0.1	33
MM3Z47	3B	47	44~50	2	150	2	0.1	36
MM3Z51	3C	51	48~54	2	180	2	0.1	39
MM3Z56	3D	56	52~60	2	200	2	0.1	43
MM3Z62	3E	62	58~66	2	215	2	0.1	47
MM3Z68	3F	68	64~72	2	240	2	0.1	52
MM3Z75	3H	75	70~79	2	265	2	0.1	56

¹⁾ V_{zT} is tested with pulse(20ms)

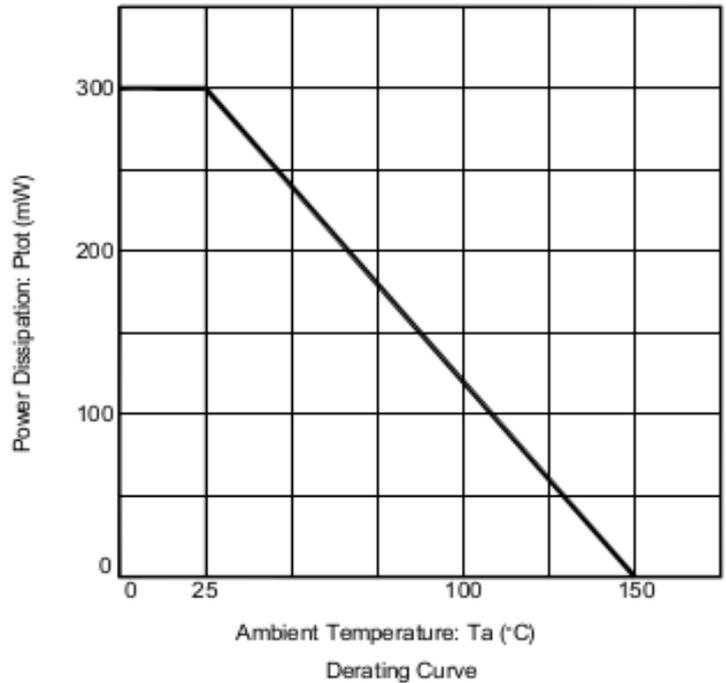
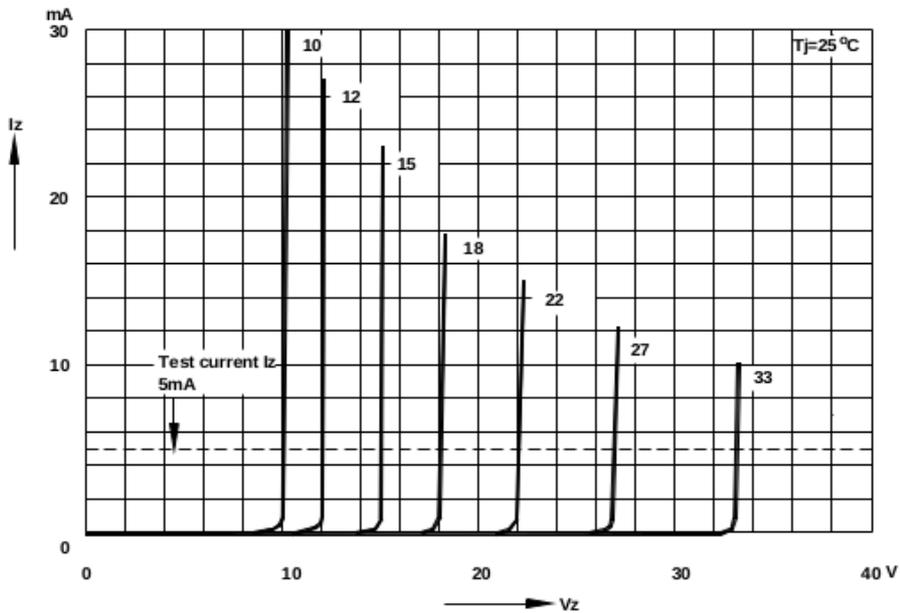
Breakdown characteristics
 $T_j = \text{constant (pulsed)}$



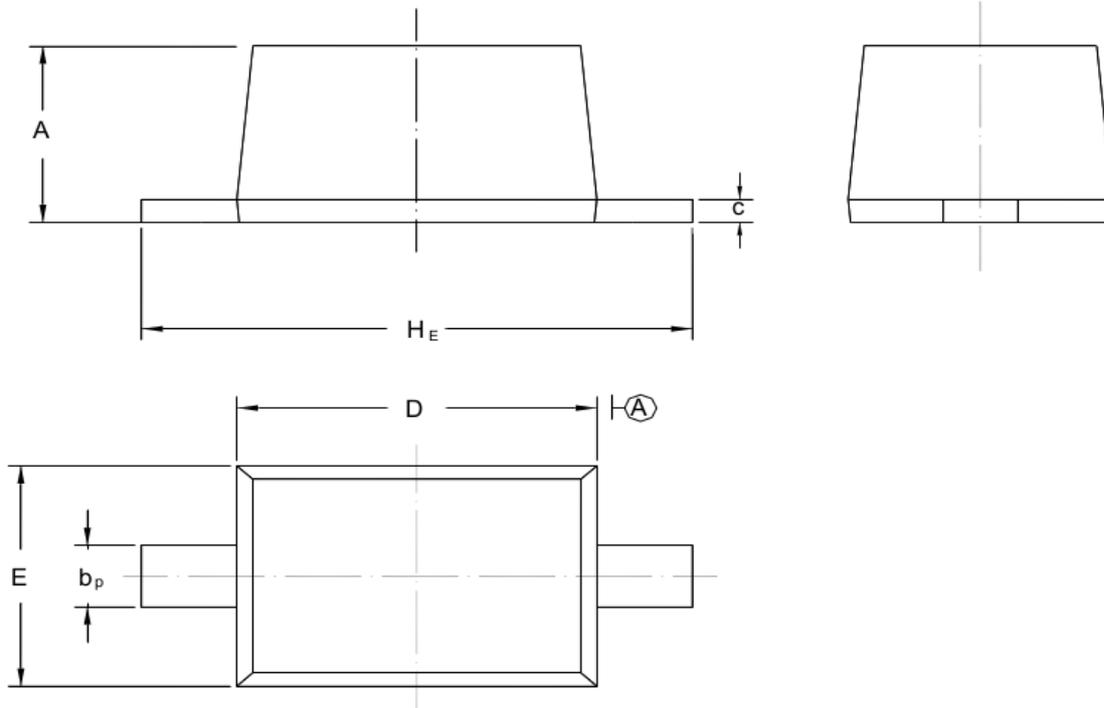
CHARACTERISTIC CURVES

Breakdown characteristics

$T_j = \text{constant (pulsed)}$



PACKAGE OUTLINE AND DIMENSIONS



UNIT	A	b_p	C	D	E	H_E
mm	1.10 0.80	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30



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Customer Notes:

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

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