

Silicon Planar Zener Diodes

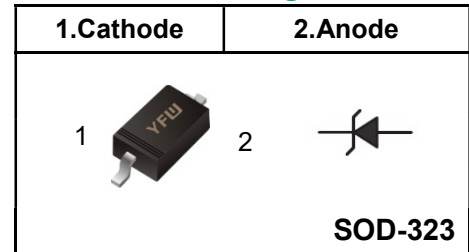
FEATURES

- ◆ Total power dissipation: Max. 300mW.
- ◆ Wide zener reverse voltage range 2.0V to 75V.
- ◆ Small plastic package suitable for surface mounted design.
- ◆ Tolerance approximately ±5%.
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: SOD-323
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 5.48mg / 0.00019oz

Pinning



Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	0.3	W
Forward Voltage at IF = 10 mA	V_F	0.9	V
Typical thermal resistance junction to ambient ⁽¹⁾	R_{θJA}	417	°C/W
Operating and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150	°C

(1) Thermal resistance from junction to ambient at P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper areas pads.

Fig.1 Maximum Continuous Power Derating

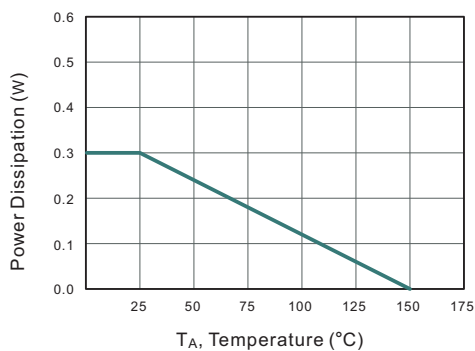
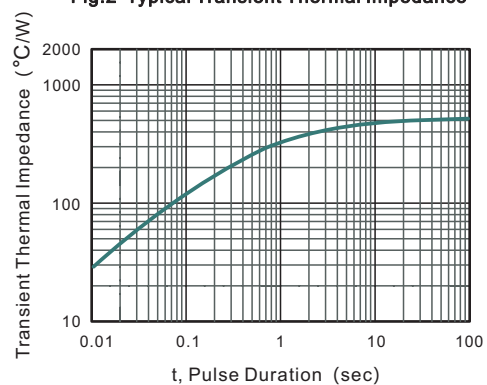


Fig.2 Typical Transient Thermal Impedance



Characteristics at Ta = 25°C

Type	Marking	Zener Voltage Range ⁽¹⁾			I _{ZT} (mA)	Dynamic Impedance	Reverse Current	
		V _{ZT} (at I _{ZT})				Z _{ZT} (at I _{ZT})	I _R	at V _R
		Min (V)	Nom (V)	Max (V)		Max (Ω)	Max (μA)	(V)
MM3Z2V0	B0	1.8	2.0	2.15	5	100	120	0.5
MM3Z2V2	C0	2.08	2.2	2.33	5	100	120	0.7
MM3Z2V4	WX	2.28	2.4	2.56	5	100	120	1
MM3Z2V7	1D	2.5	2.7	2.9	5	110	120	1
MM3Z3V0	1E	2.8	3.0	3.2	5	120	50	1
MM3Z3V3	1F	3.1	3.3	3.5	5	130	20	1
MM3Z3V6	1H	3.4	3.6	3.8	5	130	10	1
MM3Z3V9	1J	3.7	3.9	4.1	5	130	5	1
MM3Z4V3	1K	4	4.3	4.6	5	130	5	1
MM3Z4V7	1M	4.4	4.7	5	5	130	2	1
MM3Z5V1	1N	4.8	5.1	5.4	5	130	2	1.5
MM3Z5V6	1P	5.2	5.6	6	5	80	1	2.5
MM3Z6V2	1R	5.8	6.2	6.6	5	50	1	3
MM3Z6V8	1X	6.4	6.8	7.2	5	30	0.5	3.5
MM3Z7V5	1Y	7	7.5	7.9	5	30	0.5	4
MM3Z8V2	1Z	7.7	8.2	8.7	5	30	0.5	5
MM3Z9V1	2A	8.5	9.1	9.6	5	30	0.5	6
MM3Z10	2B	9.4	10	10.6	5	30	0.1	7
MM3Z11	2C	10.4	11	11.6	5	30	0.1	8
MM3Z12	2D	11.4	12	12.7	5	35	0.1	9
MM3Z13	2E	12.4	13	14.1	5	35	0.1	10
MM3Z15	2F	13.8	15	15.6	5	40	0.1	11
MM3Z16	2H	15.3	16	17.1	5	40	0.1	12
MM3Z18	2J	16.8	18	19.1	5	45	0.1	13
MM3Z20	2K	18.8	20	21.2	5	50	0.1	15
MM3Z22	2M	20.8	22	23.3	5	55	0.1	17
MM3Z24	2N	22.8	24	25.6	5	60	0.1	19
MM3Z27	2P	25.1	27	28.9	2	70	0.1	21
MM3Z30	2R	28	30	32	2	80	0.1	23
MM3Z33	2X	31	33	35	2	80	0.1	25
MM3Z36	2Y	34	36	38	2	90	0.1	27
MM3Z39	2Z	37	39	41	2	100	0.1	30
MM3Z43	3A	40	43	46	2	130	0.1	33
MM3Z47	3B	44	47	50	2	150	0.1	36
MM3Z51	3C	48	51	54	2	180	0.1	39
MM3Z56	3D	52	56	60	2	200	0.1	43
MM3Z62	3E	58	62	66	2	215	0.1	47
MM3Z68	3F	64	68	72	2	240	0.1	52
MM3Z75	3H	70	75	79	2	265	0.1	56

 (1) V_{ZT} is tested with pulses (20 ms)

Ordering information

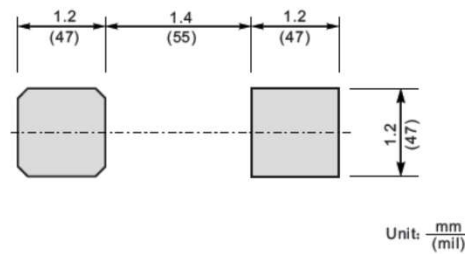
Package	Packing Description	Packing Quantity
SOD-323	Tape/Reel,7"reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-323

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
C	0.08	0.15	3.1	5.9
D	1.2	1.4	47	55
E	1.4	1.8	63	70
E1	2.55	2.75	100	108
b	0.25	0.4	9.8	16
L1	0.2	0.45	7.9	16
A1	-	0.2	-	8
∠	9°			

The recommended mounting pad size



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