

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 $\pm 5\%$.
- ♦ 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

1.Cathode	2.Anode
1	2
	
SOD-323	

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⁾	$R_{\theta JA}$	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

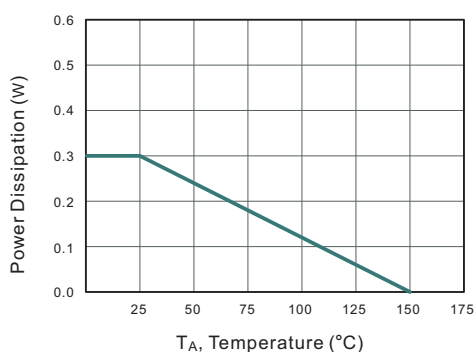
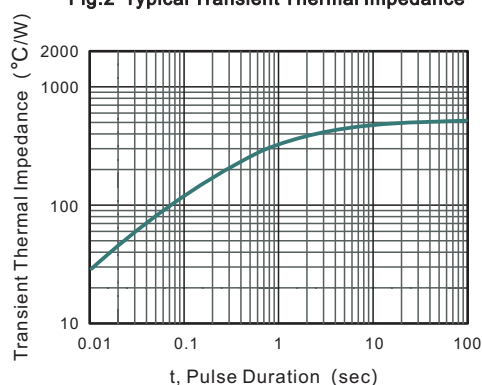


Fig.2 Typical Transient Thermal Impedance



Characteristics at Ta = 25°C

Type	Marking	Zener Voltage Range ⁽¹⁾			I _{ZT}	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)		(mA)	Max (Ω)	Max (μA)
MM3Z2V0W	B0	1.8	2.0	2.15	5	100	120	0.5
MM3Z2V2W	C0	2.08	2.2	2.33	5	100	120	0.7
MM3Z2V4W	WX	2.28	2.4	2.56	5	100	120	1
MM3Z2V7W	1D	2.5	2.7	2.9	5	110	120	1
MM3Z3V0W	1E	2.8	3.0	3.2	5	120	50	1
MM3Z3V3W	1F	3.1	3.3	3.5	5	130	20	1
MM3Z3V6W	1H	3.4	3.6	3.8	5	130	10	1
MM3Z3V9W	1J	3.7	3.9	4.1	5	130	5	1
MM3Z4V3W	1K	4	4.3	4.6	5	130	5	1
MM3Z4V7W	1M	4.4	4.7	5	5	130	2	1
MM3Z5V1W	1N	4.8	5.1	5.4	5	130	2	1.5
MM3Z5V6W	1P	5.2	5.6	6	5	80	1	2.5
MM3Z6V2W	1R	5.8	6.2	6.6	5	50	1	3
MM3Z6V8W	1X	6.4	6.8	7.2	5	30	0.5	3.5
MM3Z7V5W	1Y	7	7.5	7.9	5	30	0.5	4
MM3Z8V2W	1Z	7.7	8.2	8.7	5	30	0.5	5
MM3Z9V1W	2A	8.5	9.1	9.6	5	30	0.5	6
MM3Z10W	2B	9.4	10	10.6	5	30	0.1	7
MM3Z11W	2C	10.4	11	11.6	5	30	0.1	8
MM3Z12W	2D	11.4	12	12.7	5	35	0.1	9
MM3Z13W	2E	12.4	13	14.1	5	35	0.1	10
MM3Z15W	2F	13.8	15	15.6	5	40	0.1	11
MM3Z16W	2H	15.3	16	17.1	5	40	0.1	12
MM3Z18W	2J	16.8	18	19.1	5	45	0.1	13
MM3Z20W	2K	18.8	20	21.2	5	50	0.1	15
MM3Z22W	2M	20.8	22	23.3	5	55	0.1	17
MM3Z24W	2N	22.8	24	25.6	5	60	0.1	19
MM3Z27W	2P	25.1	27	28.9	2	70	0.1	21
MM3Z30W	2R	28	30	32	2	80	0.1	23
MM3Z33W	2X	31	33	35	2	80	0.1	25
MM3Z36W	2Y	34	36	38	2	90	0.1	27
MM3Z39W	2Z	37	39	41	2	100	0.1	30
MM3Z43W	3A	40	43	46	2	130	0.1	33
MM3Z47W	3B	44	47	50	2	150	0.1	36
MM3Z51W	3C	48	51	54	2	180	0.1	39
MM3Z56W	3D	52	56	60	2	200	0.1	43
MM3Z62W	3E	58	62	66	2	215	0.1	47
MM3Z68W	3F	64	68	72	2	240	0.1	52
MM3Z75W	3H	70	75	79	2	265	0.1	56

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

Ordering information

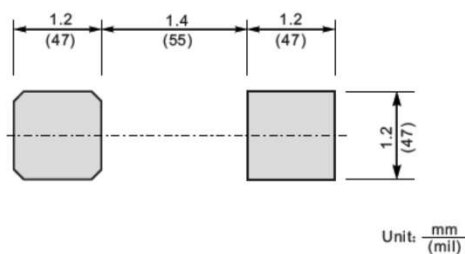
Package	Packing Description	Packing Quantity
SOD-323	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

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



Disclaimer

The information presented in this document is for reference only. Guangdong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.