

Y1ZD2V0 THRU Y1ZD75

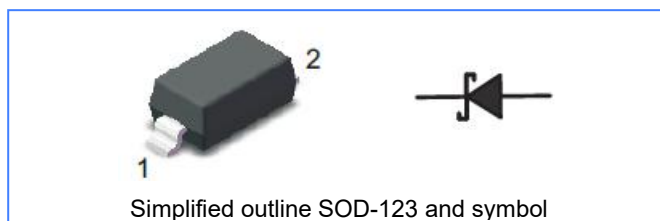
FEATURES

- Total power dissipation: Max. 500mW.
- Wide zener reverse voltage range 2.0V to 75V.
- Small plastic package suitable for surface mounted design
- Tolerance approximately $\pm 5\%$

Mechanical Data

- Case: SOD-123
- Terminals: Solderable per MIL-STD-750, Method 2026

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500	mW
Forward Voltage at IF = 10 mA	V_F	0.9	V
Typical thermal resistance junction to ambient ⁽¹⁾	$R_{\theta JA}$	340	°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" (54 X 5 cm) copper areas pads.

Electrical Characteristics (TA = 25 °C)

Type	Zener Voltage Range ⁽¹⁾				Dynamic Impedance	Reverse Current	
	VZT (at I _{ZT})			I _{ZT}	Z _{ZT} (at I _{ZT})	IR	at VR
	Min (V)	Nom (V)	Max (V)	(mA)	Max (Ω)	Max (μ A)	(V)
Y1ZD2V0	1.8	2.0	2.15	5	100	120	0.5
Y1ZD2V2	2.08	2.2	2.33	5	100	120	0.7
Y1ZD2V4	2.28	2.4	2.56	5	100	120	1
Y1ZD2V7	2.5	2.7	2.9	5	110	120	1
Y1ZD3V0	2.8	3.0	3.2	5	120	50	1
Y1ZD3V3	3.1	3.3	3.5	5	130	20	1
Y1ZD3V6	3.4	3.6	3.8	5	130	10	1
Y1ZD3V9	3.7	3.9	4.1	5	130	5	1
Y1ZD4V3	4	4.3	4.6	5	130	5	1
Y1ZD4V7	4.4	4.7	5	5	130	2	1
Y1ZD5V1	4.8	5.1	5.4	5	130	2	1.5
Y1ZD5V6	5.2	5.6	6	5	80	1	2.5
Y1ZD6V2	5.8	6.2	6.6	5	50	1	3
Y1ZD6V8	6.4	6.8	7.2	5	30	0.5	3.5
Y1ZD7V5	7	7.5	7.9	5	30	0.5	4
Y1ZD8V2	7.7	8.2	8.7	5	30	0.5	5
Y1ZD9V1	8.5	9.1	9.6	5	30	0.5	6
Y1ZD10	9.4	10	10.6	5	30	0.1	7
Y1ZD11	10.4	11	11.6	5	30	0.1	8

Y1ZD12	11.4	12	12.7	5	35	0.1	9
Y1ZD13	12.4	13	14.1	5	35	0.1	10
Y1ZD15	13.8	15	15.6	5	40	0.1	11
Y1ZD16	15.3	16	17.1	5	40	0.1	12
Y1ZD18	16.8	18	19.1	5	45	0.1	13
Y1ZD20	18.8	20	21.2	5	50	0.1	15
Y1ZD22	20.8	22	23.3	5	55	0.1	17
Y1ZD24	22.8	24	25.6	5	60	0.1	19
Y1ZD27	25.1	27	28.9	5	70	0.1	21
Y1ZD30	28	30	32	5	80	0.1	23
Y1ZD33	31	33	35	5	80	0.1	25
Y1ZD36	34	36	38	5	90	0.1	27
Y1ZD39	37	39	41	2.5	100	2	30
Y1ZD43	40	43	46	2.5	130	2	33
Y1ZD47	44	47	50	2.5	150	2	36
Y1ZD51	48	51	54	2.5	180	1	39
Y1ZD56	52	56	60	2.5	180	1	43
Y1ZD62	58	62	66	2.5	200	0.2	47
Y1ZD68	64	68	72	2.5	250	0.2	52
Y1ZD75	70	75	79	2.5	300	0.2	57

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

Typical Characteristics

Fig.1 Maximum Continuous Power Derating

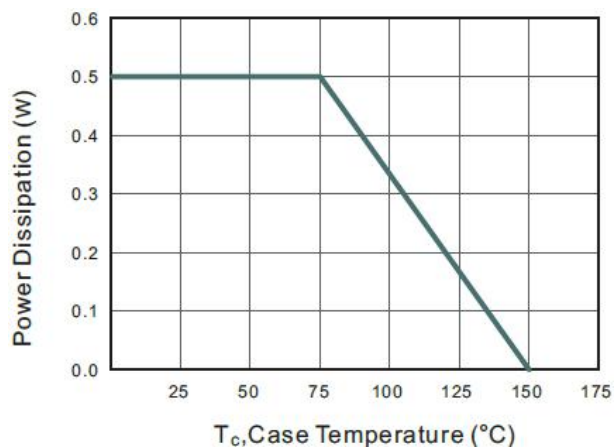
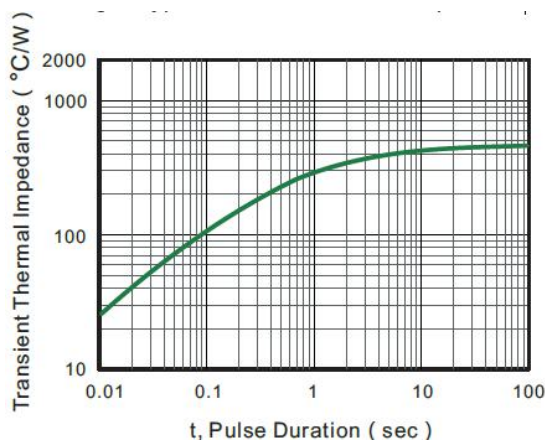


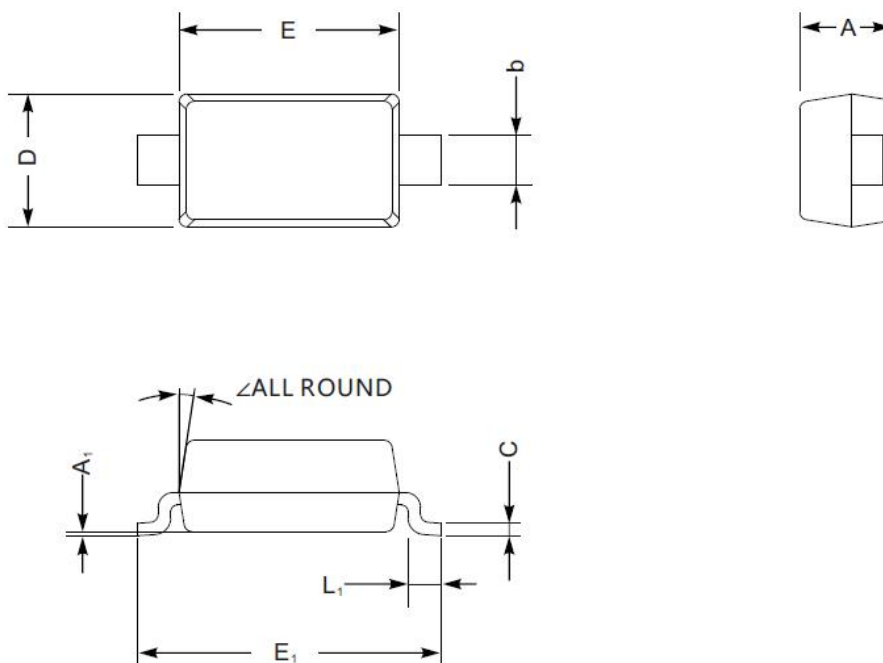
Fig.2 Typical Transient Thermal Impedance



Package Outline

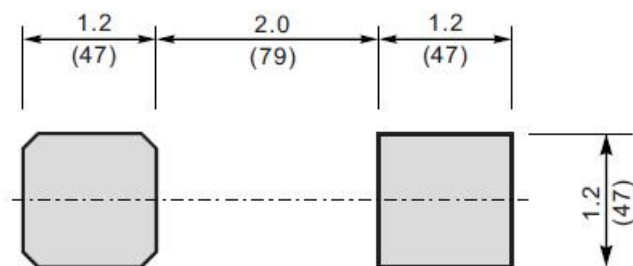
Plastic surface mounted package; 2 leads

SOD123



UNIT		A	C	D	E	E ₁	L ₁	b	A ₁	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	-	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	-	

The recommended mounting pad size


Unit: $\frac{\text{mm}}{(\text{mil})}$