

FEATURES

- Standard Zener Breakdown Voltage Range
2.0 V to 75 V
- Steady State Power Rating of 200 mW

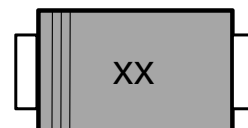
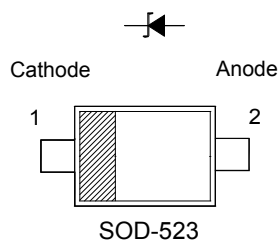
VOLTAGE RANGE

2.0 to 75 Volts

200 mW

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings ($T_a = 25\text{ }^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Total Device Dissipation	P_{tot}	200	mW
Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^{\circ}\text{C}$

Characteristics at $T_a = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 10\text{ mA}$	V_F	0.9	V

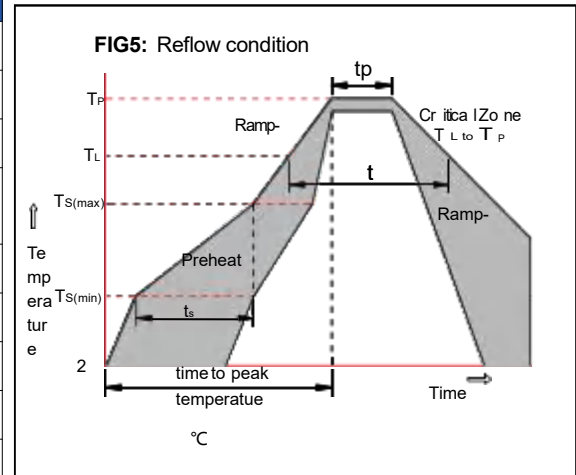
Characteristics at Ta = 25°C

Type	Marking Code	Zener Voltage ¹⁾				Zener Impedance			Leakage Current	
		V _{ZT} (V)			at I _{ZT}	Z _{ZT}	Z _{ZK}	at I _{ZK}	I _R	at V _R
		Min.	Nom.	Max.	mA	Ω	Ω	mA	μA	V
MM5Z2V0	WY	1.8	2.0	2.15	5	100	-	-	120	0.5
MM5Z2V2	RE	2.08	2.2	2.33	5	100	-	-	120	0.7
MM5Z2V4	00	2.2	2.4	2.6	5	100	1000	1	120	1
MM5Z2V7	01	2.5	2.7	2.9	5	100	1000	1	120	1
MM5Z3V0	02	2.8	3.0	3.2	5	100	1000	1	50	1
MM5Z3V3	05	3.1	3.3	3.5	5	95	1000	1	20	1
MM5Z3V6	06	3.4	3.6	3.8	5	90	1000	1	10	1
MM5Z3V9	07	3.7	3.9	4.1	5	90	1000	1	5	1
MM5Z4V3	08	4	4.3	4.6	5	90	1000	1	5	1
MM5Z4V7	09	4.4	4.7	5	5	80	800	1	2	1
MM5Z5V1	0A	4.8	5.1	5.4	5	60	500	1	2	1.5
MM5Z5V6	0C	5.2	5.6	6	5	40	200	1	1	2.5
MM5Z6V2	0E	5.8	6.2	6.6	5	10	100	1	1	3
MM5Z6V8	0F	6.4	6.8	7.2	5	15	160	1	0.5	3.5
MM5Z7V5	0G	7	7.5	7.9	5	15	160	1	0.5	4
MM5Z8V2	0H	7.7	8.2	8.7	5	15	160	1	0.5	5
MM5Z9V1	0K	8.5	9.1	9.6	5	15	160	1	0.5	6
MM5Z10	0L	9.4	10	10.6	5	20	160	1	0.1	7
MM5Z11	0M	10.4	11	11.6	5	20	160	1	0.1	8
MM5Z12	0N	11.4	12	12.7	5	25	80	1	0.1	9
MM5Z13	0P	12.4	13	14.1	5	30	80	1	0.1	10
MM5Z15	0T	14.3	15	15.8	5	30	80	1	0.1	11
MM5Z16	0U	15.3	16	17.1	2	40	80	1	0.1	12
MM5Z18	0W	16.8	18	19.1	2	45	80	1	0.1	13
MM5Z20	0Z	18.8	20	21.2	2	55	100	1	0.1	15
MM5Z22	10	20.8	22	23.3	2	55	100	1	0.1	17
MM5Z24	11	22.8	24	25.6	2	70	120	1	0.1	19
MM5Z27	12	25.1	27	28.9	2	80	300	1	0.1	21
MM5Z30	14	28	30	32	2	80	300	1	0.1	23
MM5Z33	18	31	33	35	2	80	300	1	0.1	25
MM5Z36	19	34	36	38	2	90	500	1	0.1	27
MM5Z39	20	37	39	41	2	130	500	1	2	30
MM5Z43	21	40	43	46	1	150	500	1	2	33
MM5Z47	1A	44	47	50	1	170	500	1	2	36
MM5Z51	1C	48	51	54	1	180	500	1	1	39
MM5Z56	1D	52	56	60	1	200	500	1	1	43
MM5Z62	1E	58	62	66	1	215	500	1	0.2	47
MM5Z68	1F	64	68	72	1	240	500	1	0.2	52
MM5Z75	1G	70	75	79	1	255	500	1	0.2	57

¹⁾ Tested with pulses tp = 20 ms.

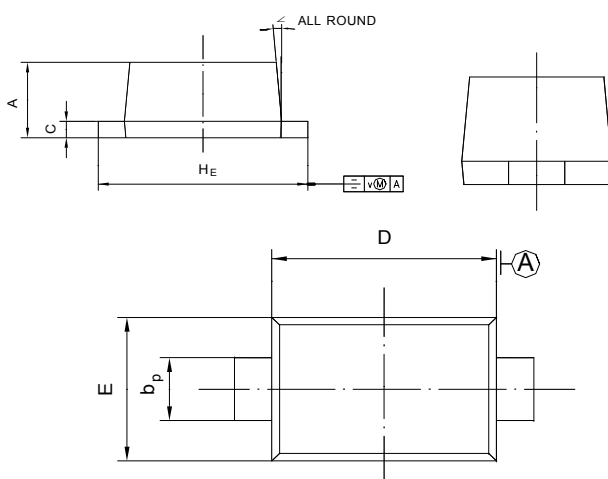
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C

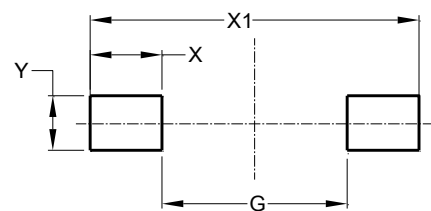


Package Dimensions & Suggested Pad Layout

SOD523

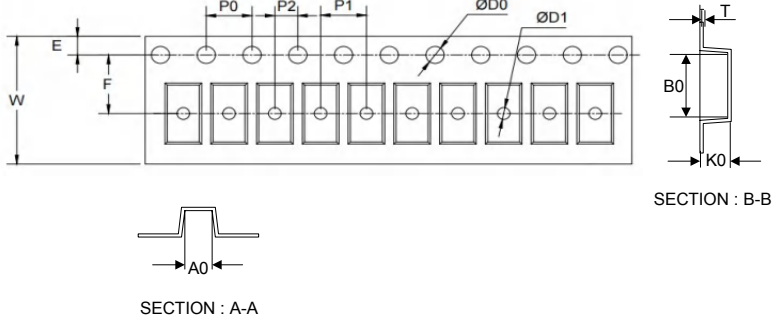
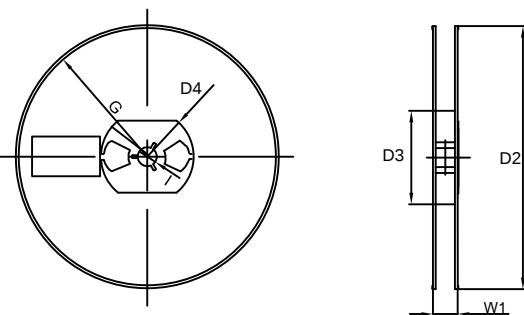


UNIT	A	b _p	C	D	E	H _E	V	∠
mm	0.70 0.50	0.40 0.20	0.14 0.05	1.30 1.10	0.90 0.75	1.70 1.50	0.1	5°



Dimensions	Value (in mm)
G	0.85
X	0.70
X1	2.25
Y	0.80

Tape & reel specification

Tape		Symbol	Dimension (mm)
		P0	4.00±0.20
		P1	2.00±0.20
		P2	2.00±0.20
		D0	1.55±0.20
		D1	0.50±0.20
		E	1.55±0.25
		F	3.60±0.20
		W	8.00±0.20
		A0	1.30±0.20
		B0	2.35±0.20
		K0	0.95±0.20
		T	0.20±0.20
		D2	177.0±5.0
		D3	55Min.
7" Reel		D4	R24.6±2.0
		G	R82.0±2.0
		I	13.0±2.0
		W1	10.20±3.0
		Quantity: 3000PCS	