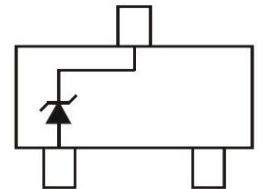
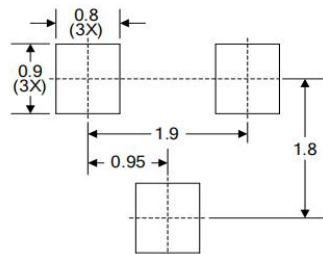
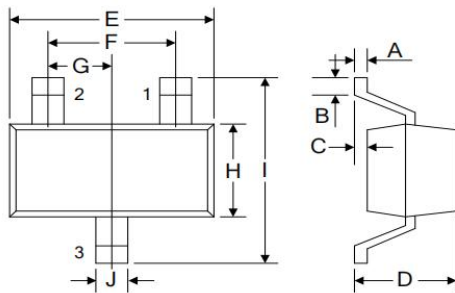


Features

- ◆ 350mW Power Dissipation
- ◆ Zener Voltage from 2.4-51V
- ◆ Ideally Suited for Automated Assembly Processes
- ◆ Moisture Sensitivity Level 1
- ◆ Epoxy Meets UL 94 V-0 Flammability Rating
- ◆ Halogen Free
- ◆ RoHS Compliant
- ◆ Operating Junction Temperature Range: -55°C to +150°C
- ◆ Storage Temperature Range: -55°C to +150°C



Dimensions (SOT-23)



Recommended Soldering Pad Layout

Symbol	Dimension			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.08	0.18	0.003	0.007
B	0.15	-	0.006	-
C	-	0.13	-	0.005
D	0.89	1.09	0.035	0.043
E	2.80	3.05	0.110	0.120
F	1.90		0.075	
G	0.95		0.037	
H	1.19	1.40	0.047	0.055
I	2.10	2.49	0.083	0.098
J	0.35	0.50	0.014	0.020

Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Part Number	Device Making	Zener Voltage			Test Current	Dynamic Impedance	Reverse Current	
		$V_Z @ I_{ZT}$			I_{ZT}	$Z_{ZT} @ I_{ZT}$	$I_R @ V_R$	
		Min.	typ.	Max.			I_R	V_R
		V	V	V	mA	Ω	μA	V
ZDT23A2V4	Z11	2.28	2.4	2.56	5	100	120	1
ZDT23A2V7	Z12	2.5	2.7	2.9	5	110	120	1
ZDT23A3V0	Z13	2.8	3	3.2	5	120	50	1
ZDT23A3V3	Z14	3.1	3.3	3.5	5	130	20	1
ZDT23A3V6	Z15	3.4	3.6	3.8	5	130	10	1
ZDT23A3V9	Z16	3.7	3.9	4.1	5	130	5	1
ZDT23A4V3	Z17	4	4.3	4.6	5	130	5	1
ZDT23A4V7	Z1	4.4	4.7	5.0	5	130	2	1
ZDT23A5V1	Z2	4.8	5.1	5.4	5	130	2	1.5
ZDT23A5V6	Z3	5.2	5.6	6.0	5	80	1	2.5
ZDT23A6V2	Z4	5.8	6.2	6.6	5	50	1	3
ZDT23A6V8	Z5	6.4	6.8	7.2	5	30	0.5	3.5
ZDT23A7V5	Z6	7	7.5	7.9	5	30	0.5	4
ZDT23A8V2	Z7	7.7	8.2	8.7	5	30	0.5	5
ZDT23A9V1	Z8	8.5	9.1	9.6	5	30	0.5	6
ZDT23A10	Z9	9.4	10	10.6	5	30	0.1	7
ZDT23A11	Y1	10.4	11	11.6	5	30	0.1	8
ZDT23A12	Y2	11.4	12	12.7	5	35	0.1	9
ZDT23A13	Y3	12.4	13	14.1	5	35	0.1	10
ZDT23A15	Y4	13.8	15	15.6	5	40	0.1	11
ZDT23A16	Y5	15.3	16	17.1	5	40	0.1	12
ZDT23A18	Y6	16.8	18	19.1	5	45	0.1	13
ZDT23A20	Y7	18.8	20	21.2	5	50	0.1	15
ZDT23A22	Y8	20.8	22	23.3	5	55	0.1	17
ZDT23A24	Y9	22.8	24	25.6	5	60	0.1	19
ZDT23A27	Y10	25.1	27	28.9	5	70	0.1	21
ZDT23A30	Y11	28	30	32	5	80	0.1	23
ZDT23A33	Y12	31	33	35	5	80	0.1	25
ZDT23A36	Y13	34	36	38	5	90	0.1	27
ZDT23A39	Y14	37	39	41	2.5	100	2	30
ZDT23A43	Y15	40	43	46	2.5	130	2	33
ZDT23A47	Y16	44	47	50	2.5	150	2	36
ZDT23A51	Y17	48	51	54	2.5	180	1	39

Ratings and Characteristic Curves (T_A=25°C unless otherwise noted)

Figure 1. Power Derating Curve

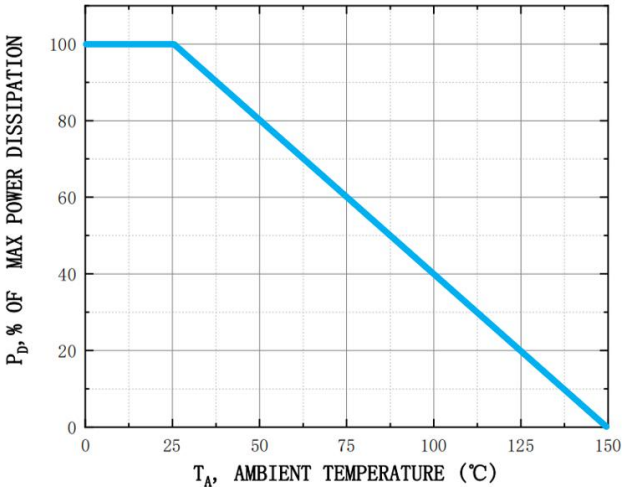


Figure 2. Typical Zener Breakdown Characteristics

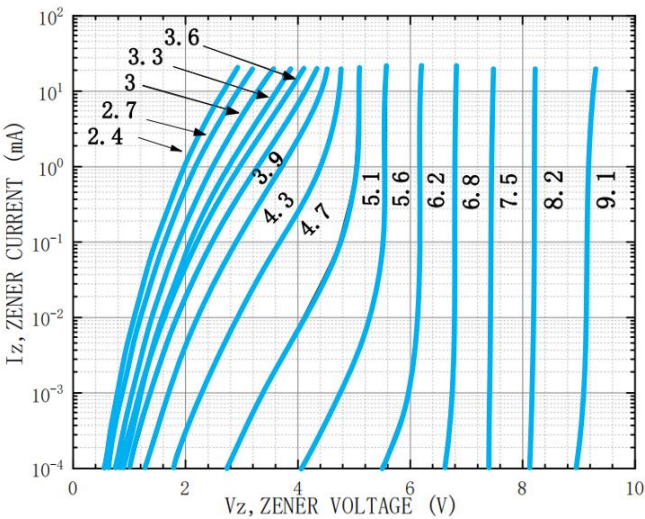


Figure 3. Typical Zener Breakdown Characteristics

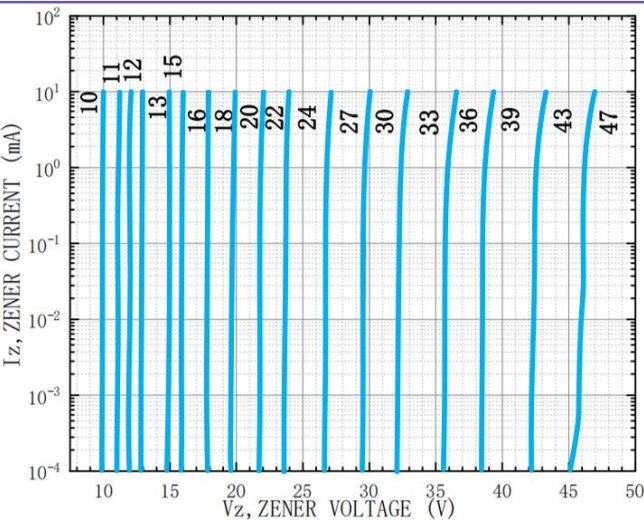
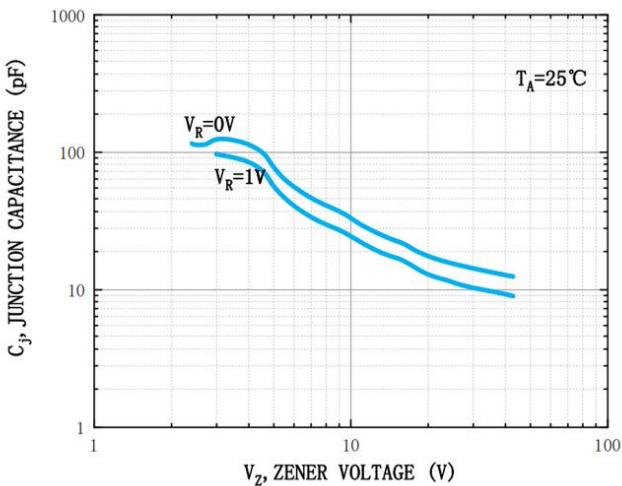
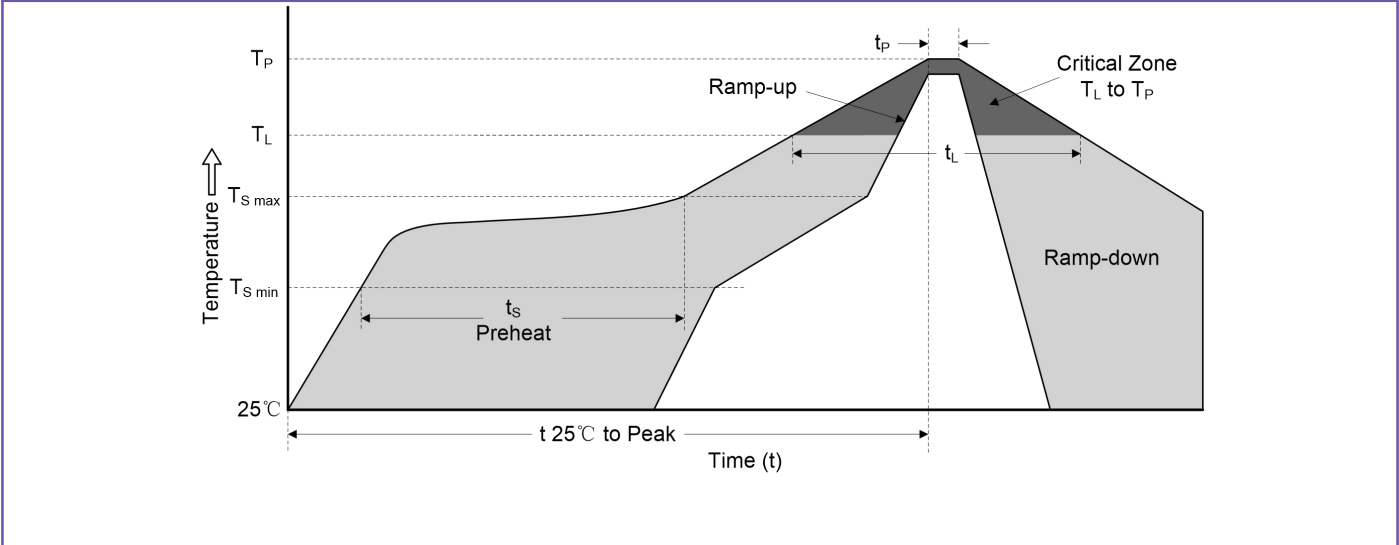


Figure 4. Typical Total Capacitance vs. Nominal Zener Voltage



Reflow Soldering Parameters



Reflow Condition		Lead-free Assembly
Pre heat	-Temperature Min (TS min)	150℃
	-Temperature Max (TS max)	200℃
	-Time (min to max) (ts)	60-180 seconds
Average ramp-up rate (TL to TP)		3℃/second max.
TS max to TL -Ramp-up Rate		3℃/second max.
Reflow	-Temperature (TL) (Liquidus)	217℃
	-Time (min to max) (ts)	60-150 seconds
Peak Temperature (TP)		260(+0/-5)℃
Time within 5℃ of actual Peak Temperature (tP)		20-40 seconds
Ramp-down Rate		6℃/second max.
Time 25℃ to Peak Temperature(TP)		8 minutes max.
Do not exceed		260℃