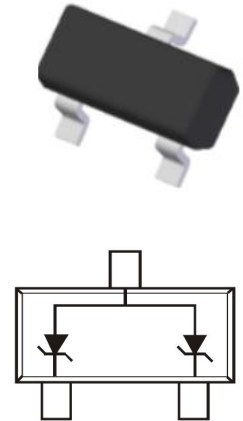


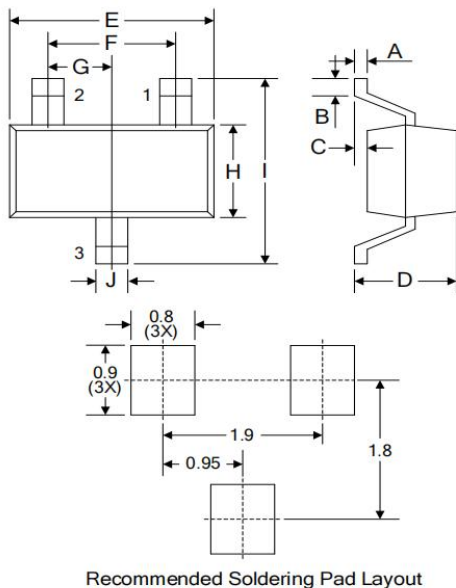
Features

- ◆ 350mW Power Dissipation
- ◆ Zener Voltage from 2.7-51V
- ◆ 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)

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	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	μA	V		
ZDT23C2V7	2.5	2.7	2.9	5	110	120	1
ZDT23C3V0	2.8	3	3.2	5	120	50	1
ZDT23C3V3	3.1	3.3	3.5	5	130	20	1
ZDT23C3V6	3.4	3.6	3.8	5	130	10	1
ZDT23C3V9	3.7	3.9	4.1	5	130	5	1
ZDT23C4V3	4	4.3	4.6	5	130	5	1
ZDT23C4V7	4.4	4.7	5.0	5	130	2	1
ZDT23C5V1	4.8	5.1	5.4	5	130	2	1.5
ZDT23C5V6	5.2	5.6	6.0	5	80	1	2.5
ZDT23C6V2	5.8	6.2	6.6	5	50	1	3
ZDT23C6V8	6.4	6.8	7.2	5	30	0.5	3.5
ZDT23C7V5	7	7.5	7.9	5	30	0.5	4
ZDT23C8V2	7.7	8.2	8.7	5	30	0.5	5
ZDT23C9V1	8.5	9.1	9.6	5	30	0.5	6
ZDT23C10	9.4	10	10.6	5	30	0.1	7
ZDT23C11	10.4	11	11.6	5	30	0.1	8
ZDT23C12	11.4	12	12.7	5	35	0.1	9
ZDT23C13	12.4	13	14.1	5	35	0.1	10
ZDT23C15	13.8	15	15.6	5	40	0.1	11
ZDT23C16	15.3	16	17.1	5	40	0.1	12
ZDT23C18	16.8	18	19.1	5	45	0.1	13
ZDT23C20	18.8	20	21.2	5	50	0.1	15
ZDT23C22	20.8	22	23.3	5	55	0.1	17
ZDT23C24	22.8	24	25.6	5	60	0.1	19
ZDT23C27	25.1	27	28.9	5	70	0.1	21
ZDT23C30	28	30	32	5	80	0.1	23
ZDT23C33	31	33	35	5	80	0.1	25
ZDT23C36	34	36	38	5	90	0.1	27
ZDT23C39	37	39	41	2.5	100	2	30
ZDT23C43	40	43	46	2.5	130	2	33
ZDT23C47	44	47	50	2.5	150	2	36
ZDT23C51	48	51	54	2.5	180	1	39

Ratings and Characteristic Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Figure 1. Power Derating Curve

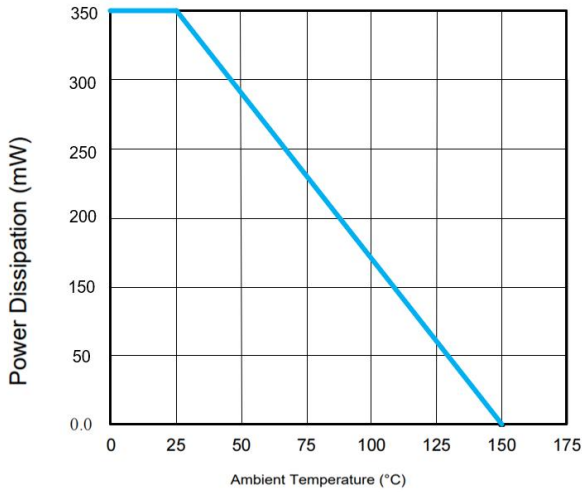


Figure 2. Typical Zener Breakdown Characteristics

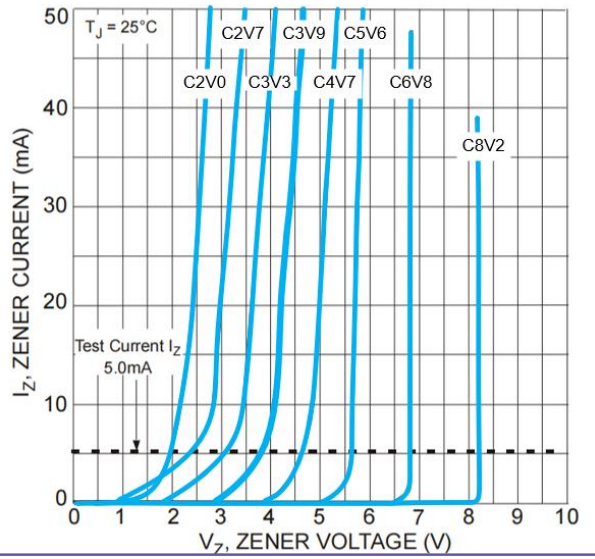


Figure 3. Typical Zener Breakdown Characteristics

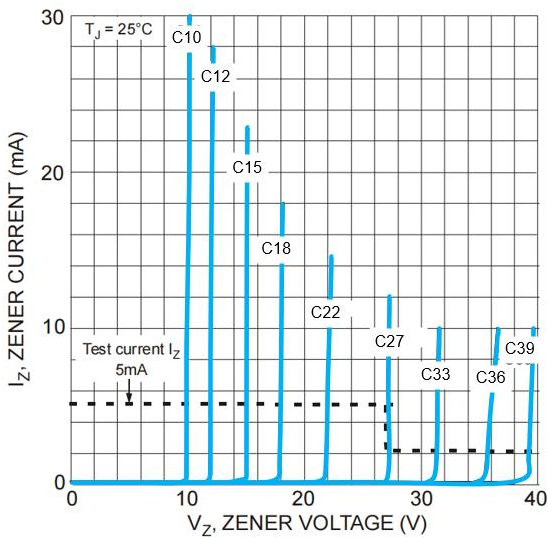
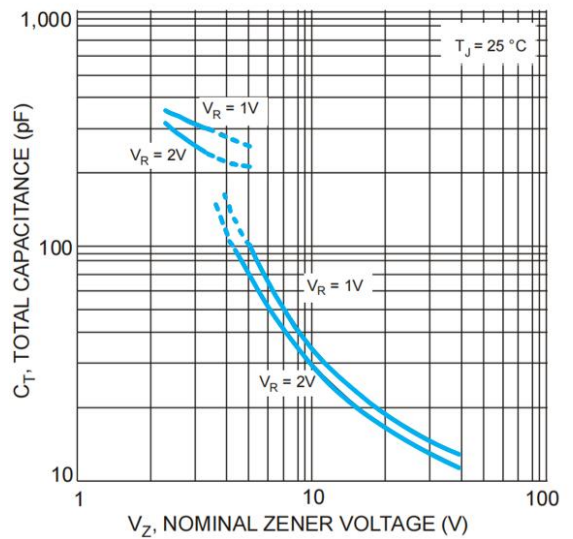
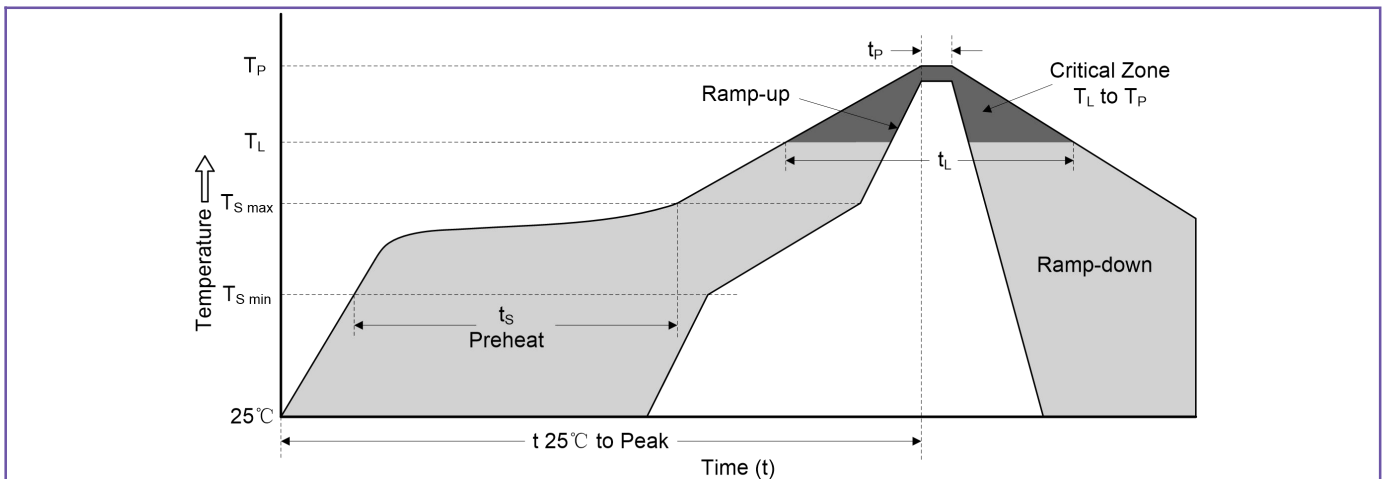


Figure 4. Typical Total Capacitance vs. Nominal Zener Voltage



Reflow Soldering Parameters



Reflow Condition		Lead-free Assembly
Pre heat	-Temperature Min ($T_{S\ min}$)	150°C
	-Temperature Max ($T_{S\ max}$)	200°C
	-Time (min to max) (t_s)	60-180 seconds
Average ramp-up rate (T_L to T_P)		3°C/second max.
$T_{S\ max}$ to T_L -Ramp-up Rate		3°C/second max.
Reflow	-Temperature (T_L) (Liquidus)	217°C
	-Time (min to max) (t_s)	60-150 seconds
Peak Temperature (T_P)		260(+0/-5)°C
Time within 5°C of actual Peak Temperature (t_P)		20-40 seconds
Ramp-down Rate		6°C/second max.
Time 25°C to Peak Temperature(T_P)		8 minutes max.
Do not exceed		260°C