

Surface Mount Zener Diodes

CZRW55C2V4 Thru 55C39

Voltage: 2.4 - 39 Volts

Power: 410 mWatts

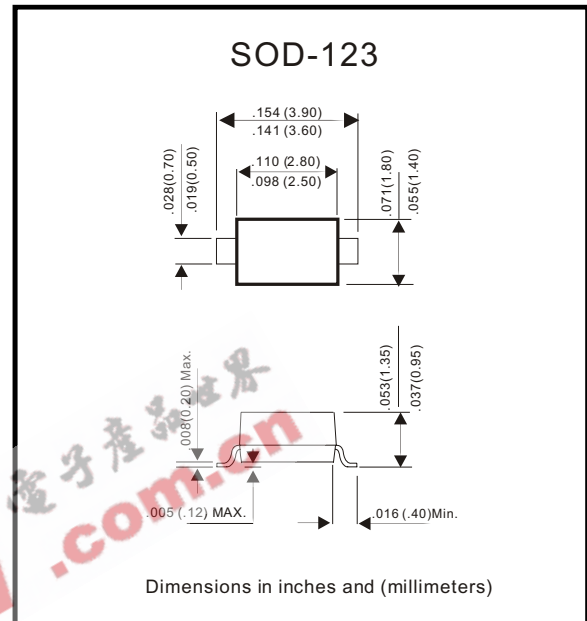


Features

- Planar Die construction
- 410mW Power Dissipation
- Zener Voltages from 2.4V - 39V
- Ideally Suited for Automated Assembly Processes

Mechanical data

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Approx. Weight: 0.008 gram



Maximum Ratings and Electrical Characteristics

Parameter	Symbol	Value	Units
Power Dissipation (Note A) at 25°C	P_D	410	mW
Peak Forward Surge Current Surge, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method) (Note B)	I_{FSM}	2.0	Amps
Operating Junction and Storage Temperature Range	T_J	-55 to +150	°C

NOTES:

A. Mounted on 5.0mm²(.013mm thick) land areas.

B. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

Maximum Ratings and Electrical Characteristics

(TA=25°C unless otherwise noted) VF=1.2V max, IF=100mA for all types

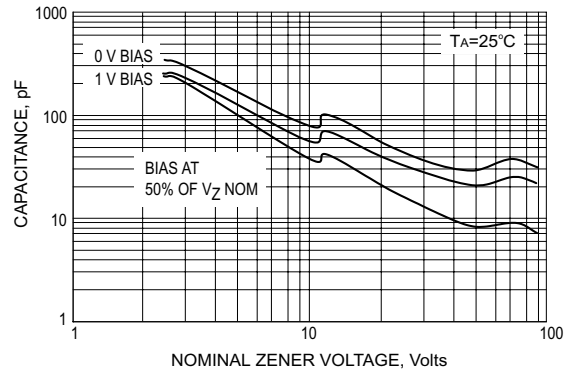
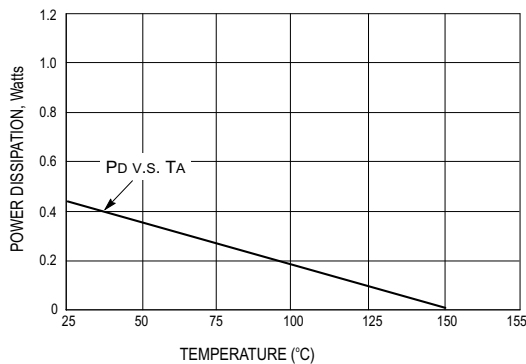
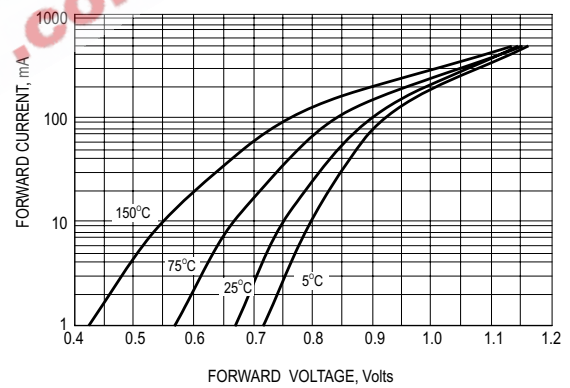
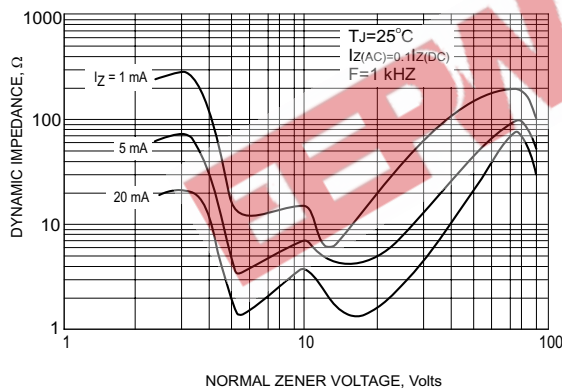
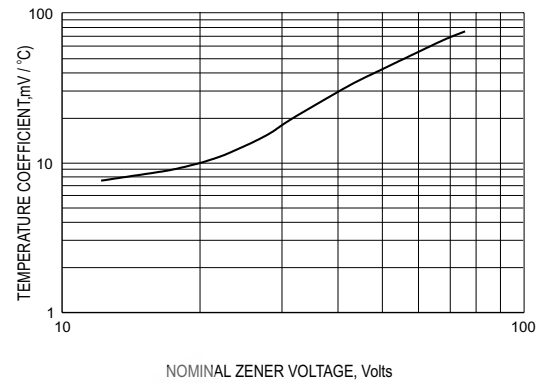
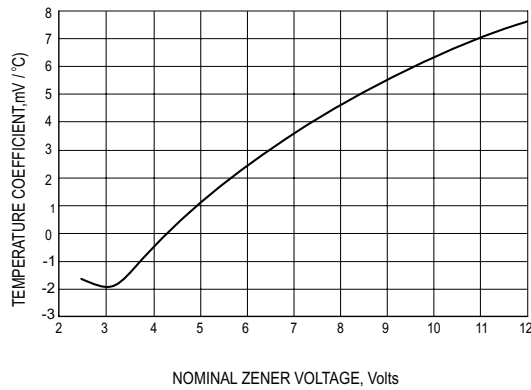
Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Max Zener Current
	V _Z @ I _{ZT}			Z _{YT} @ I _{ZT}		Z _{ZK} @ I _{ZK}		I _R @ V _R		I _{ZM} @ T _A
	Nom. V	Min. V	Max. V	Ohm	mA	Ohm	mA	nA	V	mA
410 mWatts Zener Diodes										
CZRW55C2V4	2.4	2.28	2.56	85	5	600	1	100000	1	-
CZRW55C2V7	2.7	2.5	2.9	83	5	500	1	75000	1	134
CZRW55C3V0	3.0	2.8	3.2	95	5	500	1	50000	1	118
CZRW55C3V3	3.3	3.1	3.5	95	5	500	1	25000	1	109
CZRW55C3V6	3.6	3.4	3.8	95	5	500	1	15000	1	100
CZRW55C3V9	3.9	3.7	4.1	95	5	500	1	10000	1	92
CZRW55C4V3	4.3	4	4.6	95	5	500	1	5000	1	84
CZRW55C4V7	4.7	4.4	5	78	5	500	1	5000	1	76
CZRW55C5V1	5.1	4.8	5.4	60	5	480	1	100	0.8	67
CZRW55C5V6	5.6	5.2	6	40	5	400	1	100	1	59
CZRW55C6V2	6.2	5.8	6.6	10	5	200	1	100	2	54
CZRW55C6V8	6.8	6.4	7.2	8	5	150	1	100	3	49
CZRW55C7V5	7.5	7	7.9	7	5	50	1	100	5	44
CZRW55C8V2	8.2	7.7	8.7	7	5	50	1	100	6	40
CZRW55C9V1	9.1	8.5	9.6	10	5	50	1	100	7	36
CZRW55C10	10.0	9.4	10.6	15	5	70	1	100	7.5	33
CZRW55C11	11.0	10.4	11.6	20	5	70	1	100	8.5	30
CZRW55C12	12.0	11.4	12.7	20	5	90	1	100	9	28
CZRW55C13	13.0	12.4	14.1	25	5	110	1	100	10	25
CZRW55C15	15	13.8	15.6	30	5	110	1	100	11	23
CZRW55C16	16	15.3	17.1	40	5	170	1	100	12	20
CZRW55C18	18	16.8	19.1	50	5	170	1	100	14	18
CZRW55C20	20	18.8	21.2	50	5	220	1	100	15	17
CZRW55C22	22	20.8	23.3	55	5	220	1	100	17	16
CZRW55C24	24	22.8	25.6	80	5	220	1	100	18	13
CZRW55C27	27	25.1	28.9	80	5	250	1	100	20	12
CZRW55C30	30	28	32	80	5	250	1	100	22.5	10
CZRW55C33	33	31	35	80	5	250	1	100	25	9
CZRW55C36	36	34	38	90	5	250	1	100	27	9
CZRW55C39	39	37	41	90	5	300	1	100	29	8

NOTE:

- 1.Tolerance and Type Number Designation. The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
- 2.Specials Available Include:
 - A. Nominal zener voltages between the voltages shown and tighter voltage tolerances.
 - B. Matched sets.
- 3.Zener Voltage (VZ) Measurement. Guarantees the zener voltage when measured at 90 seconds while maintaining the lead temperature (TL) at 300C, from the diode body.
- 4.Zener Impedance (ZZ) Derivation. The zener impedance is derived from the 60 cycle ac voltage, which results when an AC current having an rms value equal to 10% of the dc zener current (IZT or IZK) is superimposed on IZT or IZK.
- 5.Surge Current (IR) Non-Repetitive. The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current, IZT, per JEDEC registration; however, actual device capability is as described in Figure 5.

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Rating and Characteristic Curves (CZRW55C2V4 Thru CZRW55C39)



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