

## CZRT55C4V7 Thru CZRT55C39

Voltage: 2.4 - 39 Volts  
Power: 410 mWatts

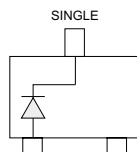


### Features

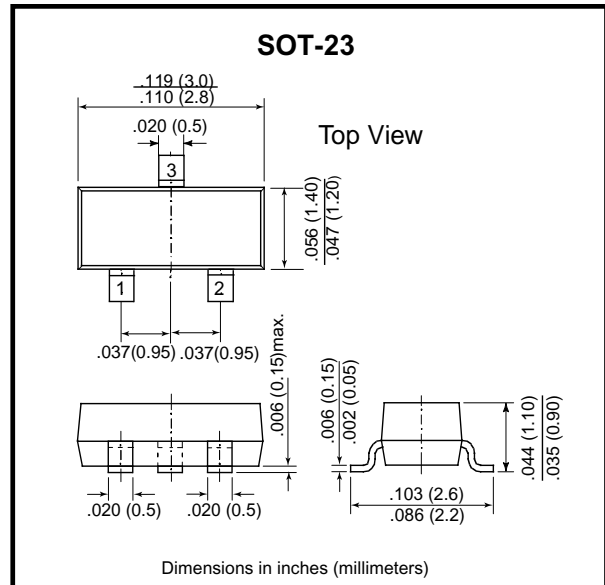
- Planar Die construction
- 410mW Power Dissipation
- Zener Voltages from 2.4V - 39V
- Ideally Suited for Automated Assembly Processes

### Mechanical data

- Case: SOT-23, Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Approx. Weight: 0.008 gram



CDST4148



### Maximum Ratings and Electrical Characteristics

Parameter	Symbol	Value	Units
Power Dissipation (Note A) at 75°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.

# Surface Mount Zener Diodes

## Maximum Ratings and Electrical Characteristics

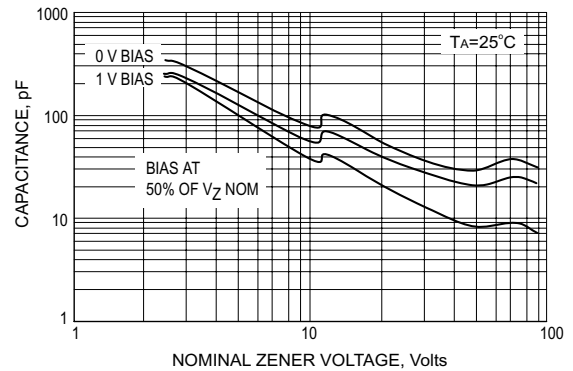
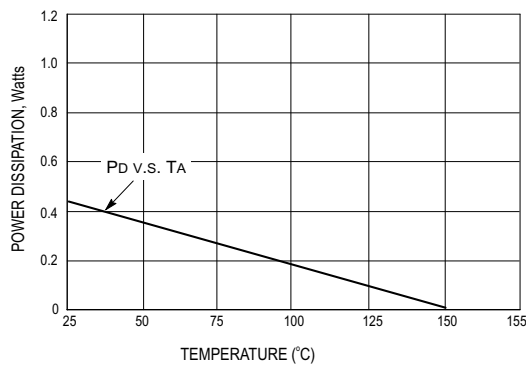
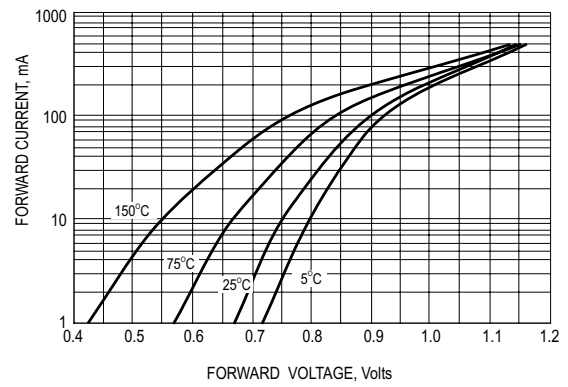
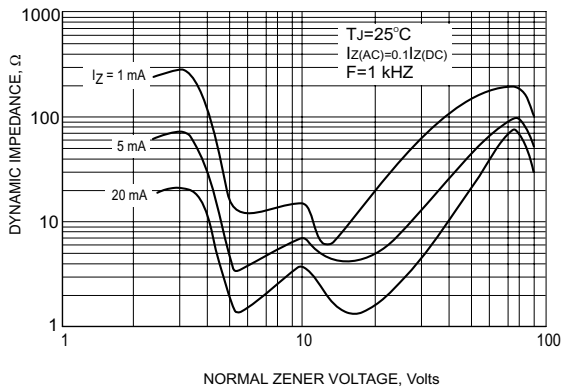
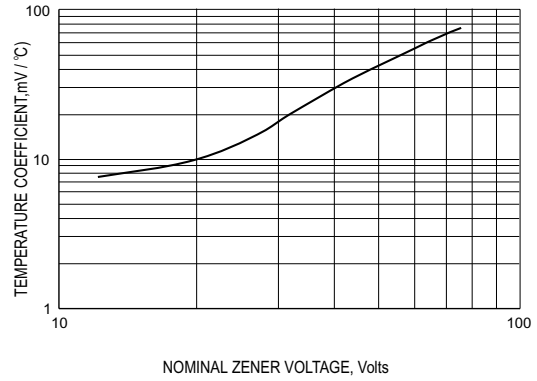
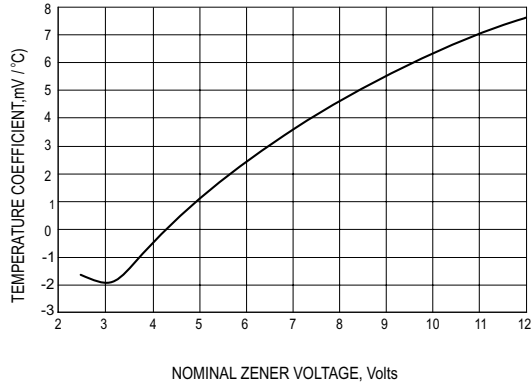
(TA=25°C unless otherwise noted) V<sub>F</sub>=1.2V max, I<sub>F</sub>=100mA for all types

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Typical Temp. Coefficient	Max Zener Current
	V <sub>Z</sub> @ I <sub>ZT</sub>			Z <sub>ZT</sub> @ I <sub>ZT</sub>		Z <sub>ZK</sub> @ I <sub>ZK</sub>		I <sub>R</sub> @ V <sub>R</sub>		T <sub>C</sub>	I <sub>ZM</sub> @ T <sub>A</sub>
	Nom. V	Min. V	Max. V	Ohm	mA	Ohm	mA	nA	V		mA
<b>410 mWatts Zener Diodes</b>											
CZRT55C2V4	2.4	2.28	2.56	85	5	600	1	100000	1	-0.075	-
CZRT55C2V7	2.7	2.5	2.9	83	5	500	1	75000	1	-0.065	134
CZRT55C3V0	3.0	2.8	3.2	95	5	500	1	50000	1	-0.06	118
CZRT55C3V3	3.3	3.1	3.5	95	5	500	1	25000	1	-0.055	109
CZRT55C3V6	3.6	3.4	3.8	95	5	500	1	15000	1	-0.055	100
CZRT55C3V9	3.9	3.7	4.1	95	5	500	1	10000	1	-0.05	92
CZRT55C4V3	4.3	4	4.6	95	5	500	1	5000	1	-0.035	84
CZRT55C4V7	4.7	4.4	5	78	5	500	1	5000	2	-0.015	76
CZRT55C5V1	5.1	4.8	5.4	60	5	480	1	100	0.8	0.005	67
CZRT55C5V6	5.6	5.2	6	40	5	400	1	100	1	0.02	59
CZRT55C6V2	6.2	5.8	6.6	10	5	200	1	100	2	0.03	54
CZRT55C6V8	6.8	6.4	7.2	8	5	150	1	100	3	0.045	49
CZRT55C7V5	7.5	7	7.9	7	5	50	1	100	5	0.05	44
CZRT55C8V2	8.2	7.7	8.7	7	5	50	1	100	6	0.055	40
CZRT55C9V1	9.1	8.5	9.6	10	5	50	1	100	7	0.065	36
CZRT55C10	10.0	9.4	10.6	15	5	70	1	100	7.5	0.07	33
CZRT55C11	11.0	10.4	11.6	20	5	70	1	100	8.5	0.075	30
CZRT55C12	12.0	11.4	12.7	20	5	90	1	100	9	0.08	28
CZRT55C13	13.0	12.4	14.1	25	5	110	1	100	10	0.08	25
CZRT55C15	15	13.8	15.6	30	5	110	1	100	11	0.09	23
CZRT55C16	16	15.3	17.1	40	5	170	1	100	12	0.09	20
CZRT55C18	18	16.8	19.1	50	5	170	1	100	14	0.09	18
CZRT55C20	20	18.8	21.2	50	5	220	1	100	15	0.09	17
CZRT55C22	22	20.8	23.3	55	5	220	1	100	17	0.09	16
CZRT55C24	24	22.8	25.6	80	5	220	1	100	18	0.09	13
CZRT55C27	27	25.1	28.9	80	5	250	1	100	20	0.09	12
CZRT55C30	30	28	32	80	5	250	1	100	22.5	0.09	10
CZRT55C33	33	31	35	80	5	250	1	100	25	0.09	9
CZRT55C36	36	34	38	90	5	250	1	100	27	0.09	9
CZRT55C39	39	37	41	90	5	300	1	100	29	0.11	8

**NOTE:**

1. Tolerance and Type Number Designation. The type numbers listed have a standard tolerance on the nominal zener voltage of ±5%.
2. Specials Available Include:
  - A. Nominal zener voltages between the voltages shown and tighter voltage tolerances.
  - B. Matched sets.
3. Zener Voltage (V<sub>Z</sub>) 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 (I<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed on I<sub>ZT</sub> or I<sub>ZK</sub>.
5. Surge Current (I<sub>R</sub>) 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, I<sub>ZT</sub>, per JEDEC registration; however, actual device capability is as described in Figure 5.

## Rating and Characteristic Curves (CZRT55C4V7 Thru CZRT55C39)



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