SMD Zener Diode

SMD Diodes Specialist

CZRA4740-G Thru CZRA4764-G

Voltage: 10 to 100 Volts
Power: 1.0 Watts
RoHS Device

Features

-For surface mounted applications.

-1.0W Power Dissipation.

-Ideally suited for automated assembly processes.

-Pb free product.

Mechanical data

-Case: SMA/DO-214AC , Molded plastic.

-Epoxy: UL 94V-0 rate flame retardant.

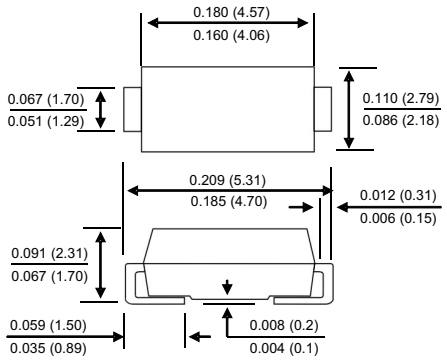
-Terminals: Solder Plated,solderable per MIL-STD-750,method 2026.

-Polarity: Cathode band.

-Mounting position: Any.

-Weight: 0.064 gram(approx.).

DO-214AC(SMA)



Dimensions in inches and (millimeter)

Maximum Rating And Electrical Characteristics
(T_A=25°C, unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum power dissipation (Note 1)	P_D	1	W
Half sine-wave superimposed on rated load (Note 2) (JEDEC method)	I_{FSM}	10	A
Operating junction and storage temperature range	T_J , T_{STG}	-55 to +150	°C

Notes:
1. Mounted on 5.0mm^2 (.013mm thick) land area.
2. Measured on 8.3mS, single half-sine wave or equivalent square wave, duty cycle=4 pulses per minute maximum.

ELECTRICAL CHARACTERISTICS(T_A = 25°C)

Part No.	Nominal Zener Voltage			Max. Zener Impedence				Max. Reverse Leakage Current		Maxmum Surge Current (mA)
	V_Z @ I_{ZT}			Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R @ V_R		
	Nom.	Min.	Max.	ohm	mA	ohm	mA	uA	V	
CZRA4740	10.00	9.5	10.5	7.0	25.0	700	0.25	10.0	7.6	454
CZRA4741	11.00	10.5	11.6	8.0	23.0	700	0.25	5.0	8.4	414
CZRA4742	12.00	11.4	12.6	9.0	21.0	700	0.25	5.0	9.1	380
CZRA4743	13.00	12.4	13.7	10.0	19.0	700	0.25	5.0	9.9	344
CZRA4744	15.00	14.3	15.8	14.0	17.0	700	0.25	5.0	11.4	305
CZRA4745	16.00	15.2	16.8	16.0	15.5	700	0.25	5.0	12.2	285
CZRA4746	18.00	17.1	18.9	20.0	14.0	750	0.25	5.0	13.7	250
CZRA4747	20.00	19.0	21.0	22.0	12.5	750	0.25	5.0	15.2	225
CZRA4748	22.00	20.9	23.1	23.0	11.5	750	0.25	5.0	16.7	205
CZRA4749	24.00	22.8	25.2	25.0	10.5	750	0.25	5.0	18.2	190
CZRA4750	27.00	25.7	28.4	35.0	9.5	750	0.25	5.0	20.6	170
CZRA4751	30.00	28.5	31.5	40.0	8.5	1000	0.25	5.0	22.8	150
CZRA4752	33.00	31.4	34.7	45.0	7.5	1000	0.25	5.0	25.1	135
CZRA4753	36.00	34.2	37.8	50.0	7.0	1000	0.25	5.0	27.4	125
CZRA4754	39.00	37.1	41.0	60.0	6.5	1000	0.25	5.0	29.7	115
CZRA4755	43.00	40.9	45.2	70.0	6.0	1500	0.25	5.0	32.7	110
CZRA4756	47.00	44.7	49.4	80.0	5.5	1500	0.25	5.0	35.8	95
CZRA4757	51.00	48.5	53.6	95.0	5.0	1500	0.25	5.0	38.8	90
CZRA4758	56.00	53.2	58.8	110.0	4.5	2000	0.25	5.0	42.6	80
CZRA4759	62.00	58.9	65.1	125.0	4.0	2000	0.25	5.0	47.1	70
CZRA4760	68.00	64.6	71.4	150.0	3.7	2000	0.25	5.0	51.7	65
CZRA4761	75.00	71.3	78.8	175.0	3.3	2000	0.25	5.0	56.0	60
CZRA4762	82.00	77.9	86.1	200.0	3.0	3000	0.25	5.0	62.2	55
CZRA4763	91.00	86.5	95.6	250.0	2.8	3000	0.25	5.0	69.2	50
CZRA4764	100.0	95.0	105.0	350.0	2.5	3000	0.25	5.0	76.0	45

RATING AND CHARACTERISTIC CURVES (CZRA4740-G Thru CZRA4764-G)

FIG 1. POWER TEMPERATURE DERATING CURVE

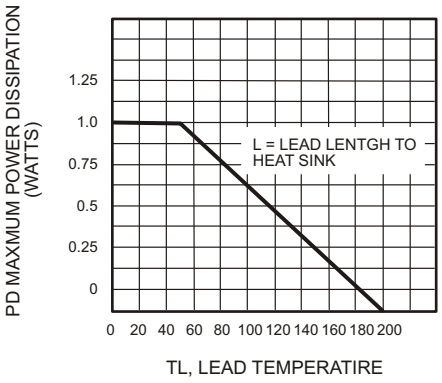


FIG 2. TEMPERATURE COFFICIENTS
(-55°C TO +150°C TEMPERATURE RANGE; 90%OF THE UNITS ARE IN RANGES INDICATED.)

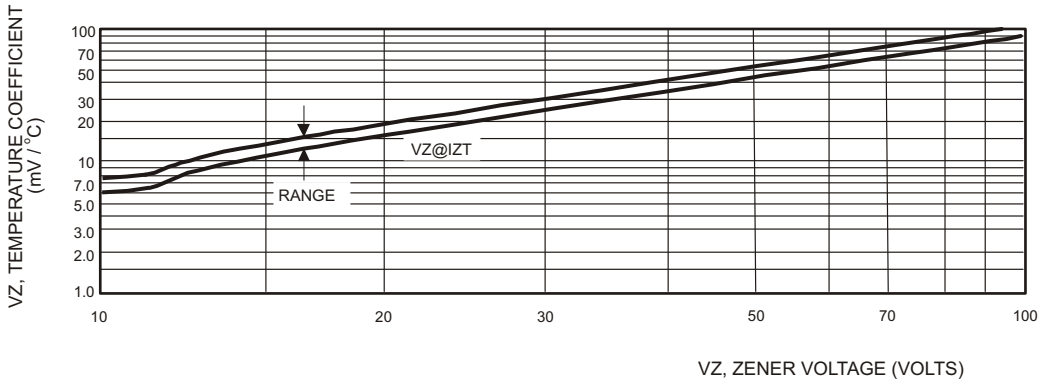


FIG 3. TYPICAL THERMAL RESISTANCE VERSUS LEAD LENGTH

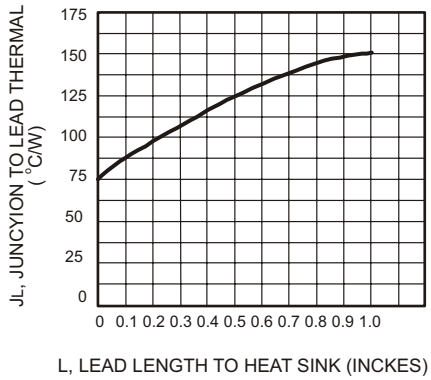
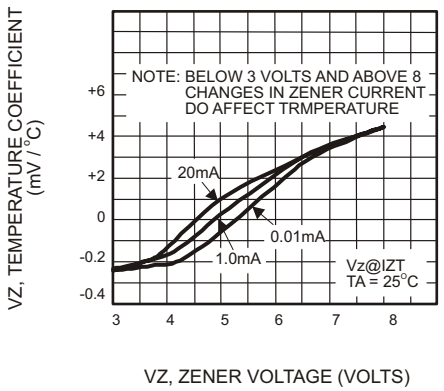
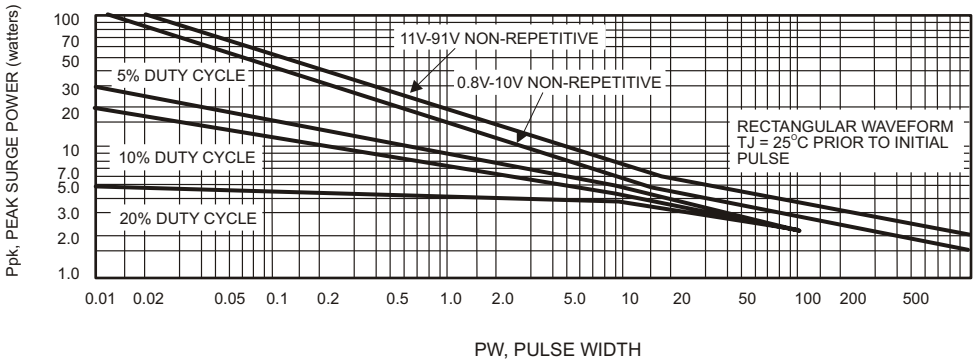


FIG 4. EFFECT OF ZENER CURRENT



RATING AND CHARACTERISTIC CURVES (CZRA4741-G Thru CZRA4764-G)

Fig. 5 Maximum surge power



This graph represents 90 percentile date point
For worse-case design characteristics, multiply surge power by 2/3

FIG 6. EFFECT OF ZENER CURRENT ON ZENER IMPEDANCE

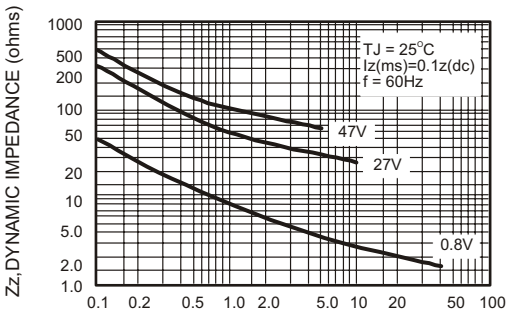


FIG 7. EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE