Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

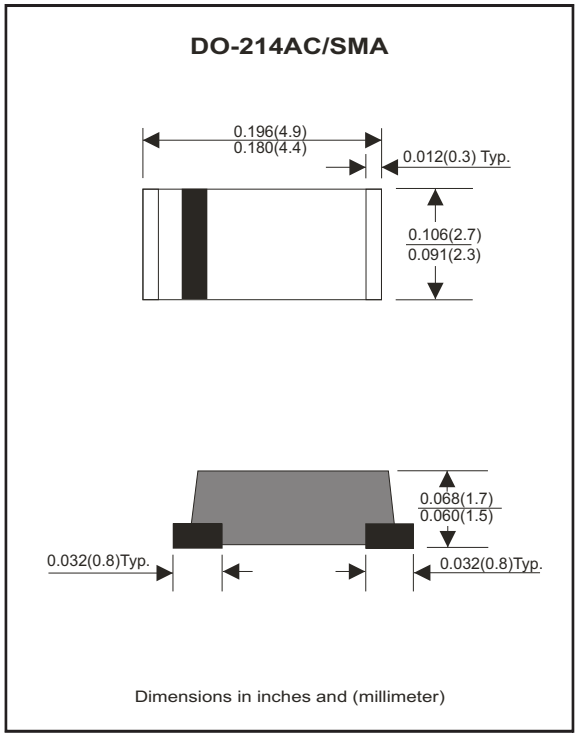
We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

CZRA4728-HF Thru. CZRA4764-HF

Voltage: 3.3 to 100 Volts
Power: 1.0 Watts
RoHS Device
Halogen Free



Features

-Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.

-Standard zener voltage tolerance ±5%.

-Low inductance.

-Low profile package.

-Built-in strain relief.

Mechanical data

-Epoxy: UL94V-0 rated flame retardant.

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

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

-Polarity: Indicated by cathode band.

-Mounting position: Any.

-Weight: 0.05 gram(approx.).

Maximum Ratings (TA=25°C, unless otherwise noted)

Parameter	Condition	Symbol	MIN.	TYP.	MAX.	Units
Forward voltage	IF = 200 mA	V_F			1.20	V
Power Dissipation	@TL = 75°C	P_D			1000	mW
Thermal resistance	Junction to case (Note 1)	$R_{\theta JC}$		30		°C/W
	Junction to ambient (Note 1)	$R_{\theta JA}$		50		°C/W
Operating temperature		T_J	-55		+150	°C
Storge temperature		T_{STG}	-65		+175	°C

Note: 1.Mounted on 0.2”x0.2”(5x5mm)FR-4 PCB.

Company reserves the right to improve product design , functions and reliability without notice.

Electrical Characteristics (at T_A = 25°C unless otherwise noted)

Part Number	Marking Code	Zener Voltage	Test Current	Zener Impedance			Leakage Current		Surge Current
		V_Z@I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R	V_R	I_{surge}
		Volts	mA	oHMs	oHMs	mA	uA	Volts	mA
CZRA4728-HF	Z3V3	3.3	76	10	400	1.0	100	1.0	1380
CZRA4729-HF	Z3V6	3.6	69	10	400	1.0	100	1.0	1260
CZRA4730-HF	Z3V9	3.9	64	9	400	1.0	50	1.0	1190
CZRA4731-HF	Z4V3	4.3	58	9	400	1.0	10	1.0	1070
CZRA4732-HF	Z4V7	4.7	53	8	500	1.0	10	1.0	970
CZRA4733-HF	Z5V1	5.1	49	7	550	1.0	10	1.0	890
CZRA4734-HF	Z5V6	5.6	45	5	600	1.0	10	2.0	810
CZRA4735-HF	Z6V2	6.2	41	2	700	1.0	10	3.0	730
CZRA4736-HF	Z6V8	6.8	37	3.5	700	1.0	10	4.0	660
CZRA4737-HF	Z7V5	7.5	34	4	700	0.5	10	5.0	605
CZRA4738-HF	Z8V2	8.2	31	4.5	700	0.5	10	6.0	550
CZRA4739-HF	Z9V1	9.1	28	5	700	0.5	10	7.0	500
CZRA4740-HF	Z10	10	25	7	700	0.25	10	7.6	454
CZRA4741-HF	Z11	11	23	8	700	0.25	5	8.4	414
CZRA4742-HF	Z12	12	21	9	700	0.25	5	9.1	380
CZRA4743-HF	Z13	13	19	10	700	0.25	5	9.9	344
CZRA4744-HF	Z15	15	17	14	700	0.25	5	11.4	304
CZRA4745-HF	Z16	16	15.5	16	700	0.25	5	12.2	285
CZRA4746-HF	Z18	18	14	20	750	0.25	5	13.7	250
CZRA4747-HF	Z20	20	12.5	22	750	0.25	5	15.2	225
CZRA4748-HF	Z22	22	11.5	23	750	0.25	5	16.7	205
CZRA4749-HF	Z24	24	10.5	25	750	0.25	5	18.2	190
CZRA4750-HF	Z27	27	9.5	35	750	0.25	5	20.6	170
CZRA4751-HF	Z30	30	8.5	40	1000	0.25	5	22.8	150
CZRA4752-HF	Z33	33	7.5	45	1000	0.25	5	25.1	135
CZRA4753-HF	Z36	36	7.0	50	1000	0.25	5	27.4	125
CZRA4754-HF	Z39	39	6.5	60	1000	0.25	5	29.7	115
CZRA4755-HF	Z43	43	6.0	70	1500	0.25	5	32.7	110

Company reserves the right to improve product design , functions and reliability without notice.

Electrical Characteristics (at T_A = 25°C unless otherwise noted)

Part Number	Marking Code	Zener Voltage	Test Current	Zener Impedance			Leakage Current		Surge Current
		V_Z@I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R	V_R	I_{surge}
		Volts	mA	(Ω)Max	(Ω)Max	mA	(uA)Max	Volts	mA
CZRA4756-HF	Z47	47	5.5	80	1500	0.25	5	35.8	95
CZRA4757-HF	Z51	51	5.0	95	1500	0.25	5	38.8	90
CZRA4758-HF	Z56	56	4.5	110	2000	0.25	5	42.6	80
CZRA4759-HF	Z62	62	4.0	125	2000	0.25	5	47.1	70
CZRA4760-HF	Z68	68	3.7	150	2000	0.25	5	51.7	65
CZRA4761-HF	Z75	75	3.3	175	2000	0.25	5	56.0	60
CZRA4762-HF	Z82	82	3.0	200	3000	0.25	5	62.2	55
CZRA4763-HF	Z91	91	2.8	250	3000	0.25	5	69.2	50
CZRA4764-HF	Z100	100	2.5	350	3000	0.25	5	76.0	45

Note: 5% tolerance of Zener voltage.

RATING AND CHARACTERISTIC CURVES (CZRA4728-HF Thru. CZRA4764-HF)

Fig.1 - Max. Continuous Power Derating

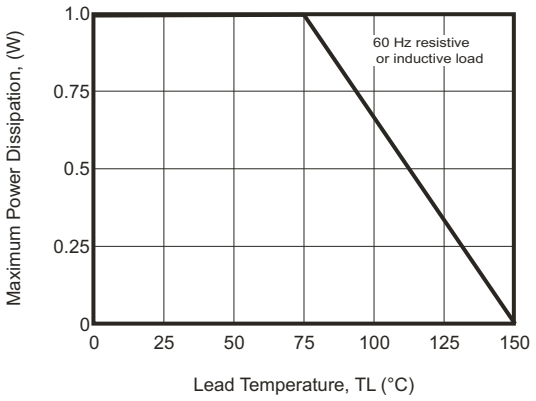
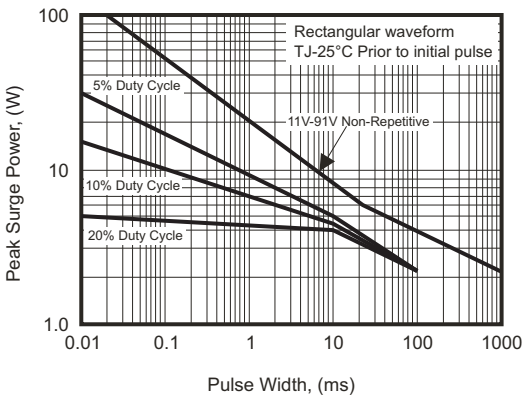


Fig.2 - Maximum surge power



RATING AND CHARACTERISTIC CURVES (CZRA4728-HF Thru. CZRA4764-HF)

FIG 3A. Range for Units to 12 Volts

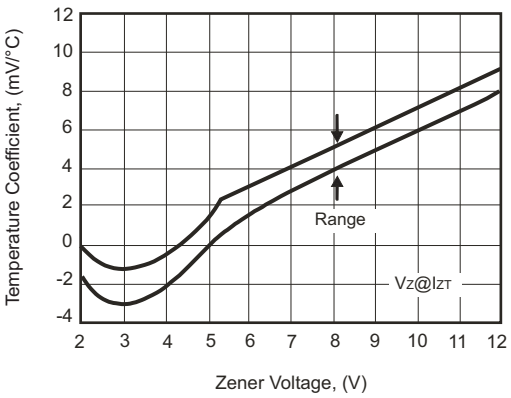


FIG 3B. Range for Units 12 to 100 Volts

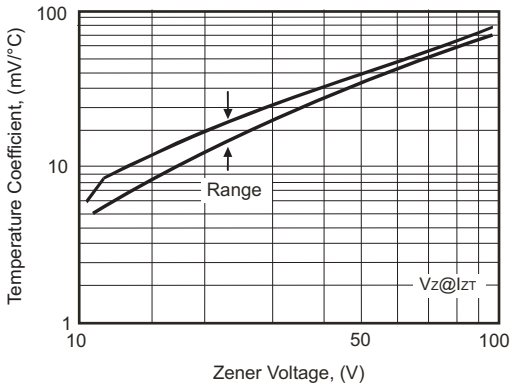
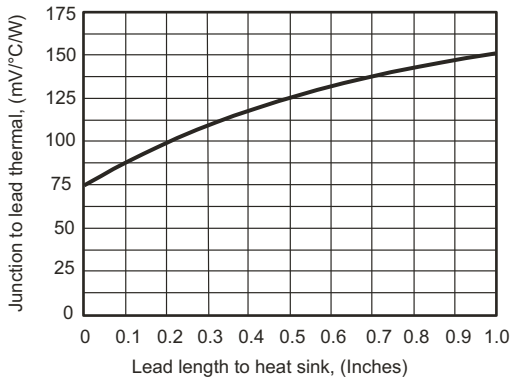


FIG 4. Temperature Coefficients (-55°C to +150°C temperature change ; 90% of the units are in the ranges indicated.)



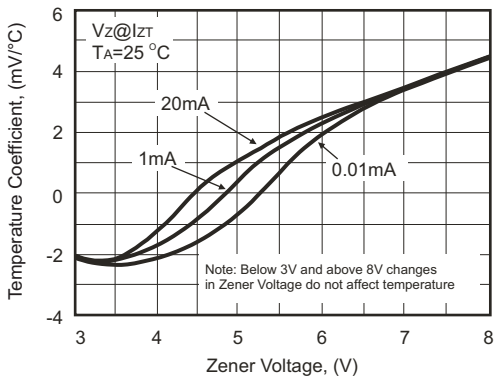


FIG 5. Typical Thermal Resistance Versus Lead

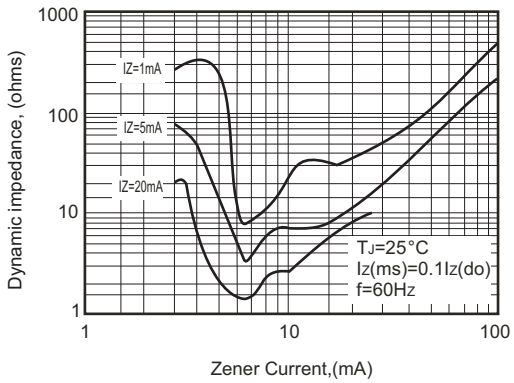
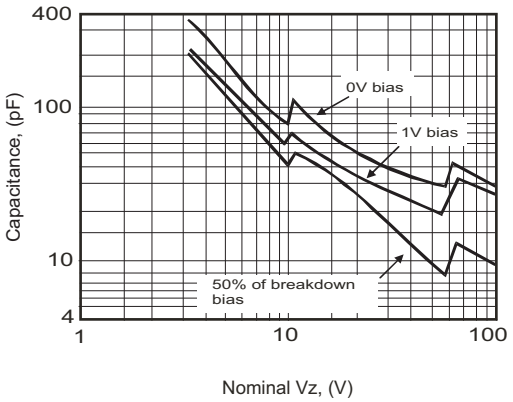
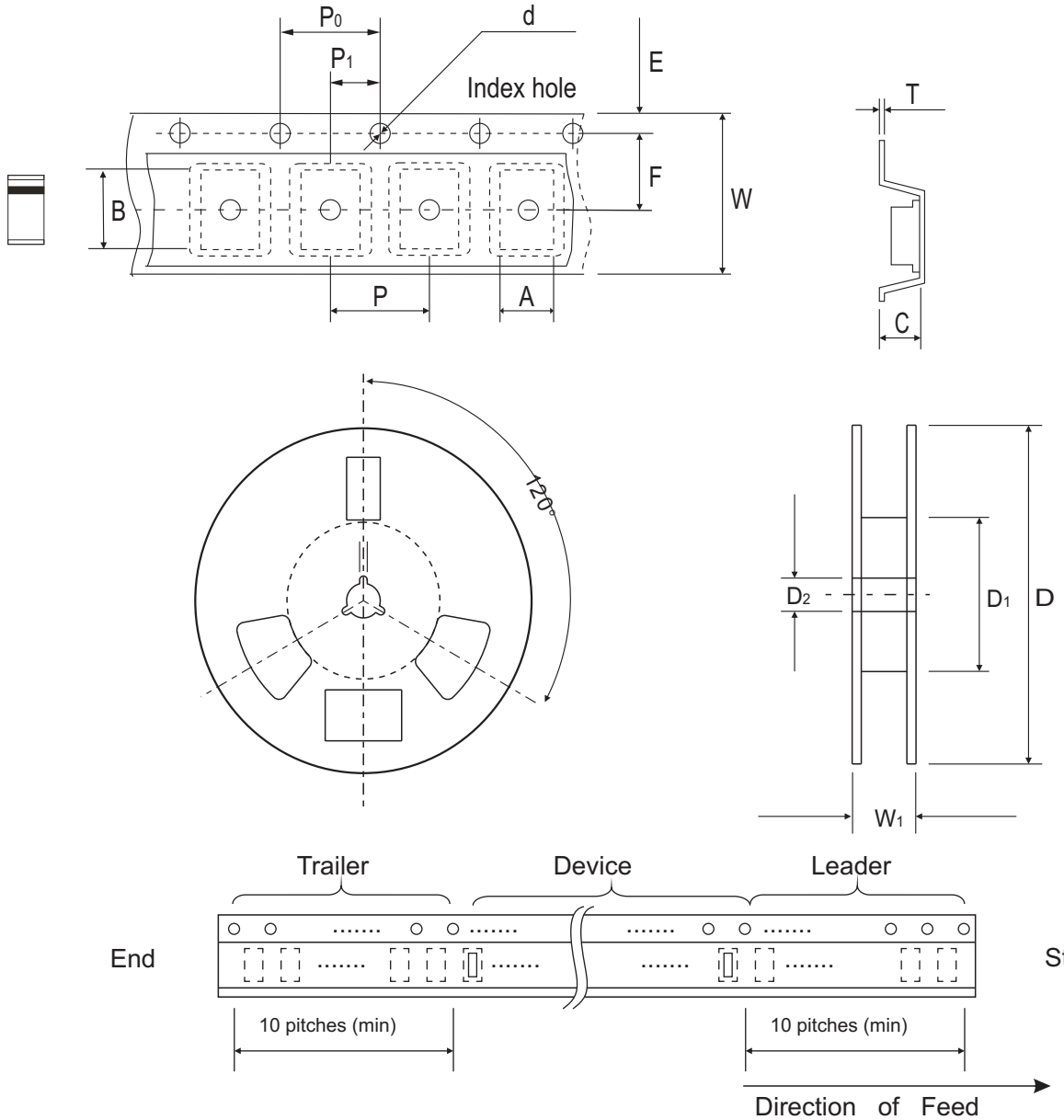


FIG 6. Effect of Zener Current



Reel Taping Specification



	SYMBOL	A	B	C	d	D	D_1	D_2
DO-214AC (SMA)	(mm)	2.8 ± 0.10	5.00 ± 0.10	1.90 ± 0.10	1.50 ± 0.10	178 ± 2.00	62.0 MIN.	13.0 ± 0.50
	(inch)	0.110 ± 0.004	0.197 ± 0.004	0.075 ± 0.004	0.059 ± 0.004	7.008 ± 0.078	2.441 MIN.	0.512 ± 0.008

	SYMBOL	E	F	P	P_0	P_1	W	W_1
DO-214AC (SMA)	(mm)	1.75 ± 0.10	5.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	12.00 ± 0.30	18.00 ± 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.472 ± 0.012	0.709 ± 0.040

Company reserves the right to improve product design , functions and reliability without notice.

Pinning information

Pin	Simplified outline	Symbol
PIN 1 Cathode PIN 2 Anode		

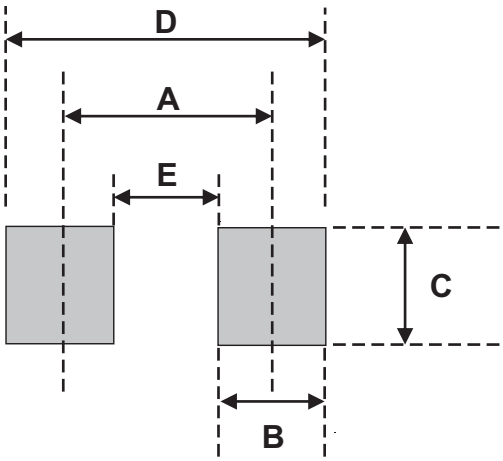
Marking Code

Part Number	Marking Code
CZRA4728-HF ~ CZRA4764-HF	XXXX

Product type marking code (see page.2~3)

Suggested PAD Layout

SIZE	DO-214AC (SMA)	
	(mm)	(inch)
A	3.80	0.150
B	1.60	0.063
C	2.80	0.110
D	5.40	0.213
E	2.20	0.087



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-214AC (SMA)	2,000	7