

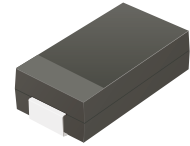
# CZRB5338B-HF Thru. CZRB5388B-HF

Voltage: 5.1V to 200V

Power: 5 W

RoHS Device

Halogen Free

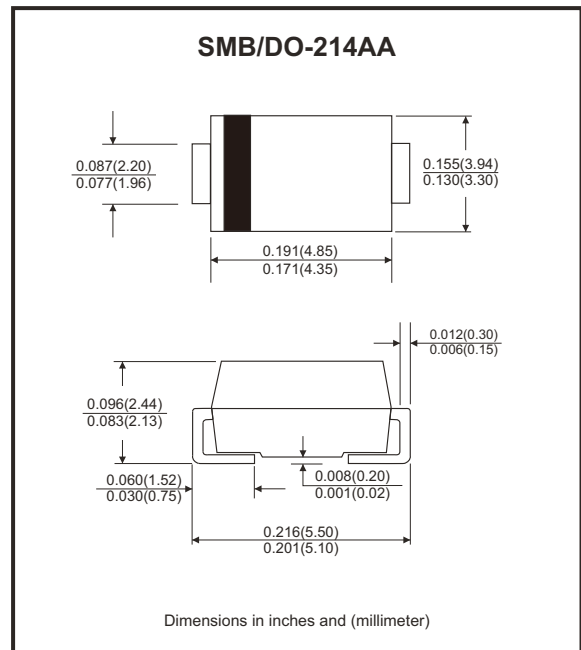


## Features

- Glass passivated chip.
- Low leakage.
- Built-in strain relief.
- Low inductance.
- High peak reverse power dissipation.
- For use in stabilizing and clipping with high power rating.

## Mechanical data

- Epoxy: UL 94V-0 rate flame retardant.
- Case: Molded plastic.
- Lead: Solderable per MIL-STD-202, method 208 guranteed.
- Polarity: Color band denotes cathode end.
- Mounting position: Any.



## Circuit diagram



## Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
DC Power dissipation at T <sub>L</sub> = 75°C (Note 1)	P <sub>D</sub>	5.0	W
Maximum forward voltage at I <sub>F</sub> = 200 mA	V <sub>F</sub>	1.2	V
Junction temperature range	T <sub>J</sub>	-55 to +150	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C

Note: 1. Mounted on PCB with Cu-Pad size 20mm \* 20mm.

## Rating and Characteristics Curves (CZRB5338B-HF Thru. CZRB5388B-HF)

Fig.1 - Power Temperature Derating Curve

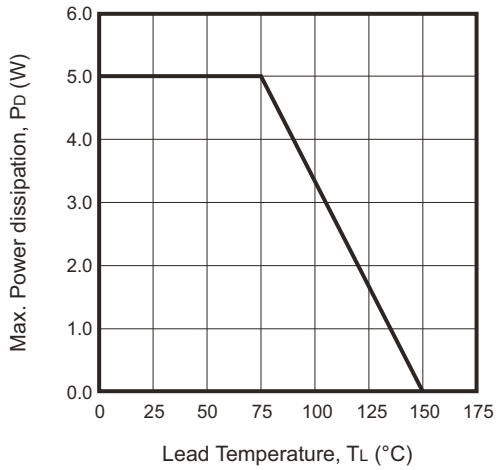


Fig.2 - Temperature Coefficients v.s. Zener Voltage

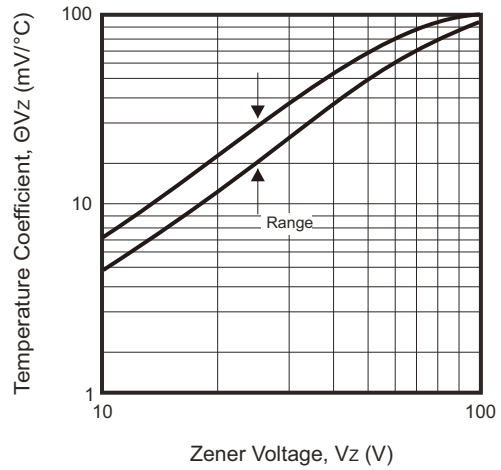


Fig.3 - Typical Thermal Resistance v.s. Lead Length

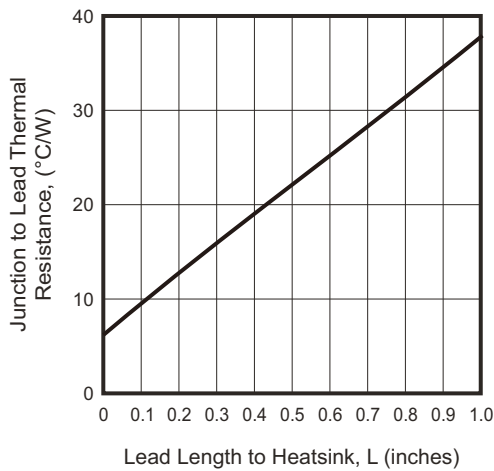


Fig.4 - Maximum Surge Power

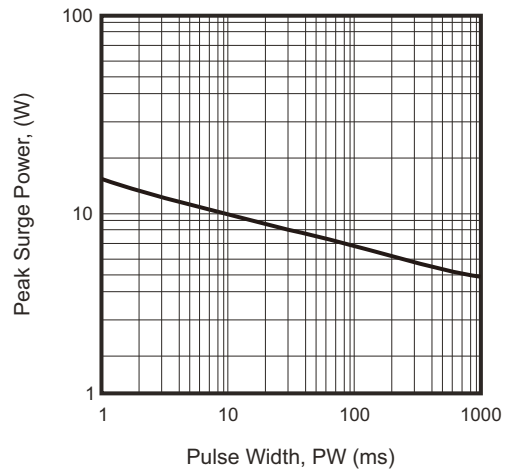
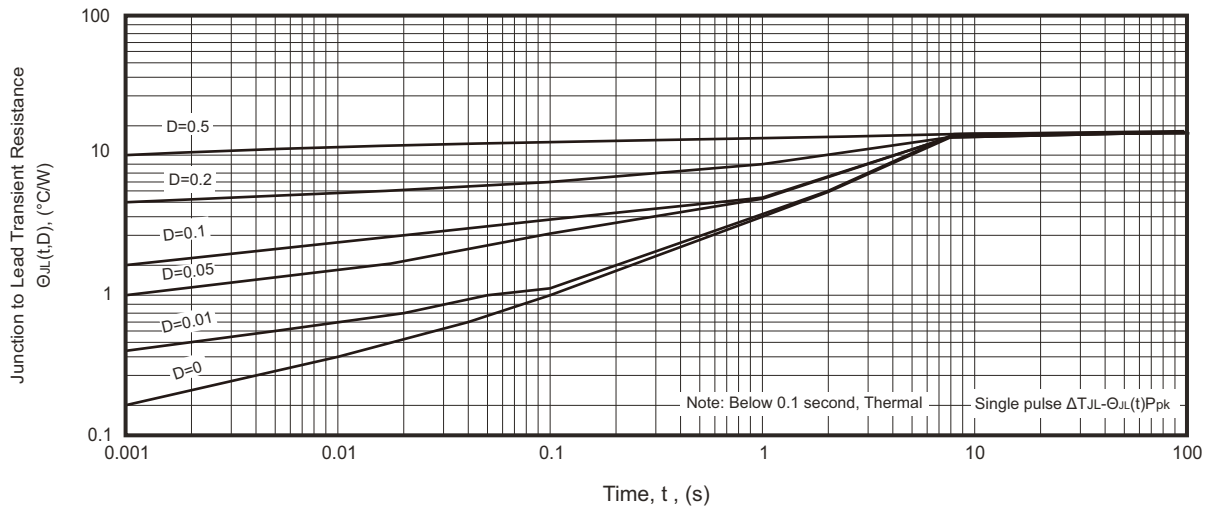


Fig.5 - Typical Thermal Response L, Lead Length=3/8inch



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

REV:C

## Electrical Characteristics (TA=25°C unless otherwise noted)

Part Number	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Marking Code
	Vz @ IzT	IzT	ZzT @ IzT	Zzk @ IzK	IzK	IR @ VR		
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	
CZRB5338B-HF	5.1	240	1.5	400	1	1.0	1.0	338B
CZRB5339B-HF	5.6	220	1.0	400	1	1.0	2.0	339B
CZRB5340B-HF	6.0	200	1.0	300	1	1.0	3.0	340B
CZRB5341B-HF	6.2	200	1.0	200	1	1.0	3.0	341B
CZRB5342B-HF	6.8	175	1.0	200	1	10.0	5.2	342B
CZRB5343B-HF	7.5	175	1.5	200	1	10.0	5.7	343B
CZRB5344B-HF	8.2	150	1.5	200	1	10.0	6.2	344B
CZRB5345B-HF	8.7	150	2.0	200	1	10.0	6.6	345B
CZRB5346B-HF	9.1	150	2.0	150	1	7.5	6.9	346B
CZRB5347B-HF	10.0	125	2.0	125	1	5.0	7.6	347B
CZRB5348B-HF	11.0	125	2.5	125	1	5.0	8.4	348B
CZRB5349B-HF	12.0	100	2.5	125	1	2.0	9.1	349B
CZRB5350B-HF	13.0	100	2.5	100	1	1.0	9.9	350B
CZRB5351B-HF	14.0	100	2.5	75	1	1.0	10.6	351B
CZRB5352B-HF	15.0	75	2.5	75	1	1.0	11.5	352B
CZRB5353B-HF	16.0	75	2.5	75	1	1.0	12.2	353B
CZRB5354B-HF	17.0	70	2.5	75	1	0.5	12.9	354B
CZRB5355B-HF	18.0	65	2.5	75	1	0.5	13.7	355B
CZRB5356B-HF	19.0	65	3.0	75	1	0.5	14.4	356B
CZRB5357B-HF	20.0	65	3.0	75	1	0.5	15.2	357B
CZRB5358B-HF	22.0	50	3.5	75	1	0.5	16.7	358B
CZRB5359B-HF	24.0	50	3.5	100	1	0.5	18.2	359B
CZRB5360B-HF	25.0	50	4.0	110	1	0.5	19.0	360B
CZRB5361B-HF	27.0	50	5.0	120	1	0.5	20.6	361B
CZRB5362B-HF	28.0	50	6.0	130	1	0.5	21.2	362B
CZRB5363B-HF	30.0	40	8.0	140	1	0.5	22.8	363B

Notes:

- (1) The type number listed have a standard tolerance on the nominal zener voltage of ± 5%.
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on IzT per JEDEC Method.

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

## Electrical Characteristics (TA=25°C unless otherwise noted)

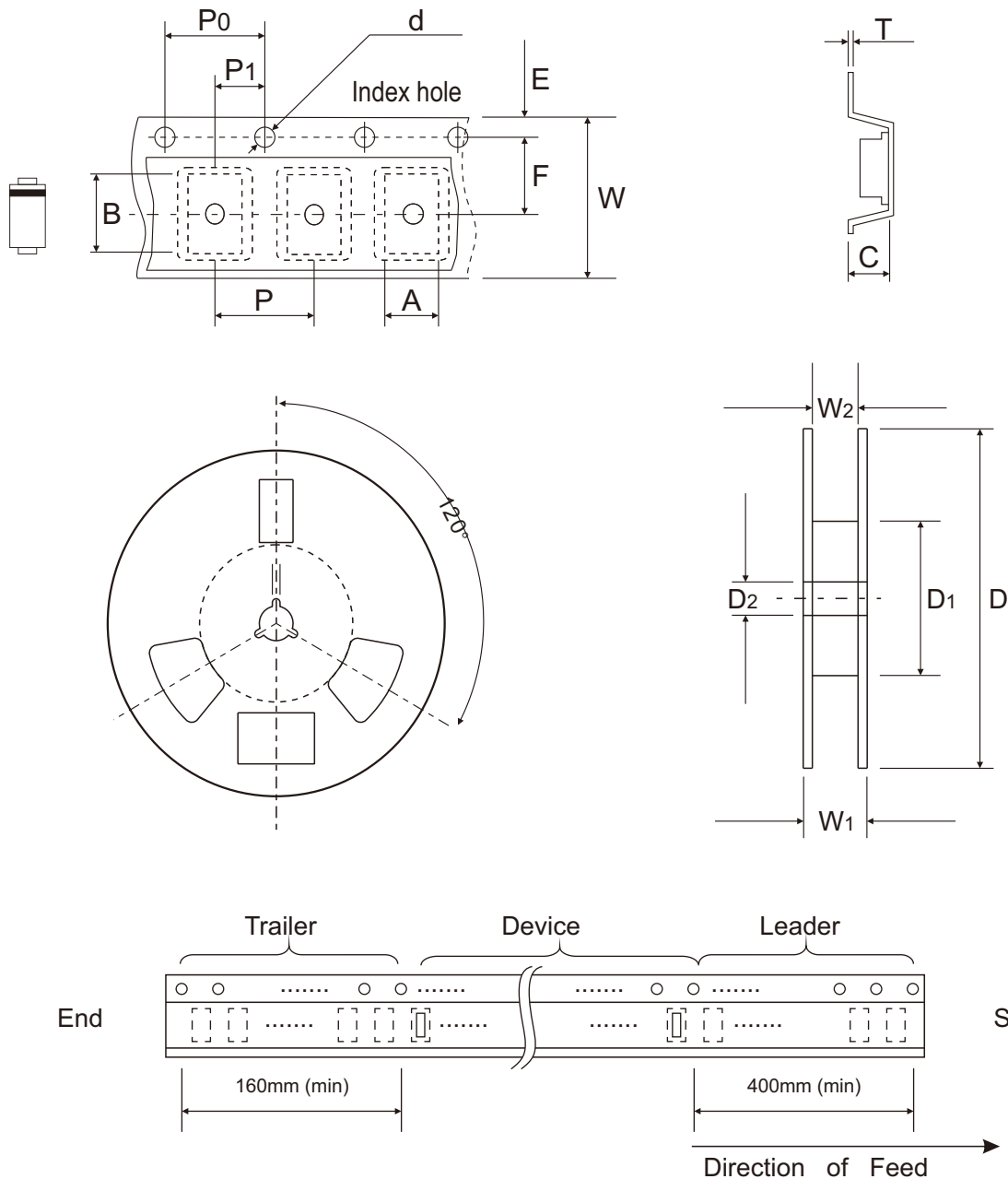
Part Number	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Marking Code
	Vz @ IZT	IZT	ZzT @ IZT	ZzK @ IZK	IZK	IR @ VR		
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	
CZRB5364B-HF	33.0	40	10.0	150	1	0.5	25.1	364B
CZRB5365B-HF	36.0	30	11.0	160	1	0.5	27.4	365B
CZRB5366B-HF	39.0	30	14.0	170	1	0.5	29.7	366B
CZRB5367B-HF	43	30	20	190	1	0.5	32.7	367B
CZRB5368B-HF	47	25	25	210	1	0.5	35.8	368B
CZRB5369B-HF	51	25	27	230	1	0.5	38.8	369B
CZRB5370B-HF	56	20	35	280	1	0.5	42.6	370B
CZRB5371B-HF	60	20	40	350	1	0.5	42.5	371B
CZRB5372B-HF	62	20	42	400	1	0.5	47.1	372B
CZRB5373B-HF	68	20	44	500	1	0.5	51.7	373B
CZRB5374B-HF	75	20	45	620	1	0.5	56.0	374B
CZRB5375B-HF	82	15	65	720	1	0.5	62.2	375B
CZRB5376B-HF	87	15	75	760	1	0.5	66.0	376B
CZRB5377B-HF	91	15	75	760	1	0.5	69.2	377B
CZRB5378B-HF	100	12	90	800	1	0.5	76.0	378B
CZRB5379B-HF	110	12	125	1000	1	0.5	83.6	379B
CZRB5380B-HF	120	10	170	1150	1	0.5	91.2	380B
CZRB5381B-HF	130	10	190	1250	1	0.5	98.8	381B
CZRB5382B-HF	140	8	230	1500	1	0.5	106.0	382B
CZRB5383B-HF	150	8	330	1500	1	0.5	114.0	383B
CZRB5384B-HF	160	8	350	1650	1	0.5	122.0	384B
CZRB5385B-HF	170	8	380	1750	1	0.5	129.0	385B
CZRB5386B-HF	180	5	430	1750	1	0.5	137.0	386B
CZRB5387B-HF	190	5	450	1850	1	0.5	144.0	387B
CZRB5388B-HF	200	5	480	1850	1	0.5	152.0	388B

Notes:

- (1) The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 5\%$ .
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on IZT per JEDEC Method.

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

## Reel Taping Specification



DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2	E
	(mm)	See Note 1			1.55 ± 0.05	330.00	50.00 (Min.)	13.00 + 0.50 - 0.20	1.75 ± 0.10
	(inch)	See Note 1			0.061 ± 0.002	12.992	1.969 (Min.)	0.512 + 0.020 - 0.008	0.069 ± 0.004

DO-214AA (SMB)	SYMBOL	F	P	P0	P1	T	W	W1	W2
	(mm)	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.40 (Max.)	12.00 ± 0.10	18.40 (Max.)	12.40 + 2.00 - 0.00
	(inch)	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.016 (Max.)	0.472 ± 0.004	0.724 (Max.)	0.488 + 0.079 - 0.000

Notes: 1. A, B, and C the clearance between the component and the cavity must be within 0.5mm max. for 8mm tape and 12mm tape, 1.0mm max. for 16mm tape and 24mm tape.

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

## Marking Code

Part Number	Marking Code
CZRB5338B-HF Thru. CZRB5388B-HF	See page. 3~4

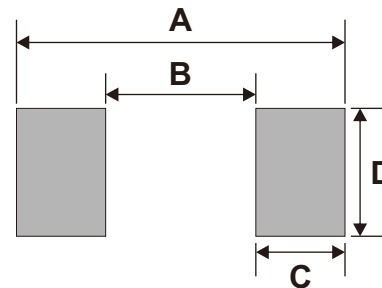


1. XXXX : Marking code (see Page.3~4)

2. : CathodBand

## Suggested PAD Layout

SIZE	DO-214AA(SMB)	
	(mm)	(inch)
A	5.60 REF	0.220 REF
B	2.16 MAX	0.085 MAX
C	1.52 MIN	0.060 MIN
D	2.18 MIN	0.086 MIN



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
DO-214AA (SMB)	3,000	13