



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!



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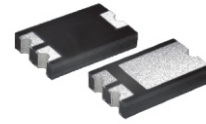
## CDBZ320200-HF

Reverse Voltage: 200 Volts

Forward Current: 20 Amp

RoHS Device

Halogen free



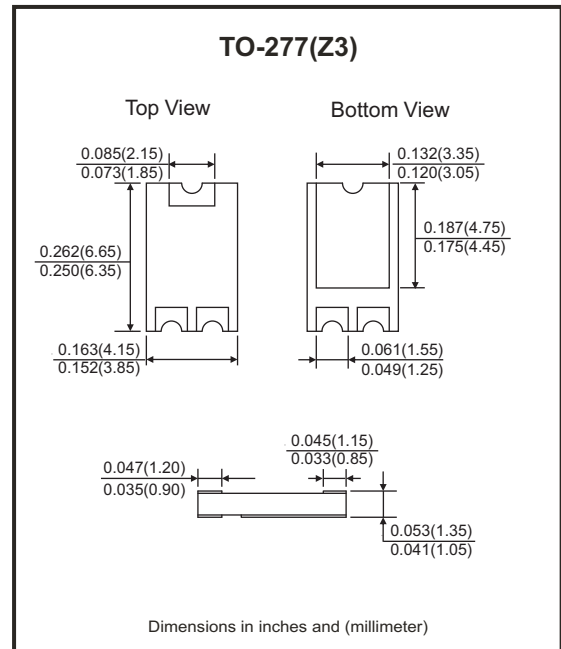
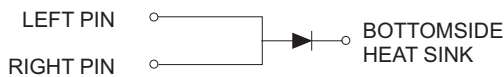
### Features

- Lead less chip form, no lead damage.
- Low power loss, High efficiency.
- High current capability, low  $V_F$ .
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 .

### Mechanical data

- Case: Packed with FRP substrate and epoxy underfilled.
- Terminals: Pure Tin plated (Lead-Free), solderable per MIL-STD-750, method 2026.
- Weight: 0.08 grams (approx).

### Circuit Diagram



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

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	VRRM	200	V
Average forward current	IF(AV)	20	A
Peak forward surge current (8.3ms single half sine-wave)	IFSM	280	A
Operating and storage temperature range	TJ, TSTG	-55 to +150	°C

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage (NOTE 1)	$V_F$	$I_F = 20\text{ A}$		0.83	0.93	V
Repetitive peak reverse current	$I_{RRM}$	$V_R = \text{Max. } V_{RRM}, T_A = 25^\circ\text{C}$		0.02	0.10	mA
Thermal resistance	$R_{\theta JA}$	Junction to ambient (NOTE 2)		60		°C/W
	$R_{\theta JL}$	Junction to lead (NOTE 2)		22		°C/W
	$R_{\theta JC}$	Junction to case (NOTE 2)		20		°C/W
	$R_{\theta JC}$	Junction to case (NOTE 3)		4		°C/W

NOTES : (1) Pulse test width PW=300µsec , 1% duty cycle.  
 (2) Mounted on P.C.B. with 14 x 14mm copper pad areas.  
 (3) Mounted on infinite heat sink.

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

REV: C

## RATING AND CHARACTERISTIC CURVES (CDBZ320200-HF)

Fig.1 - Typical Forward Current Derating Curve

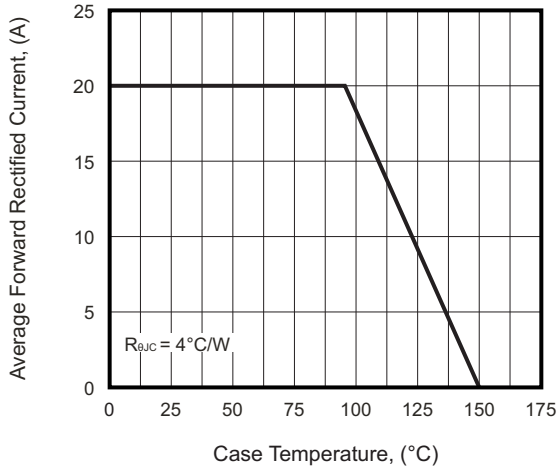


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

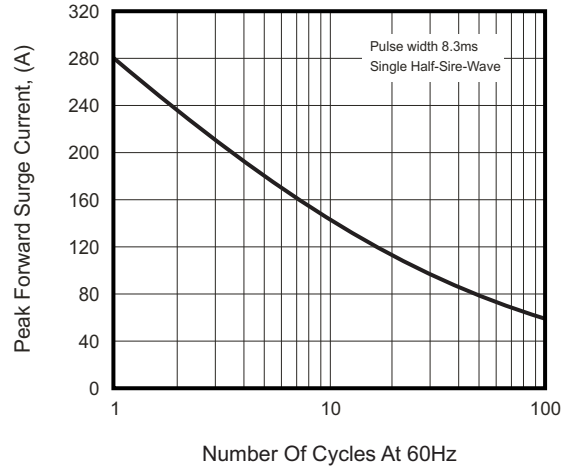


Fig.3 - Typical Instantaneous Forward Characteristics

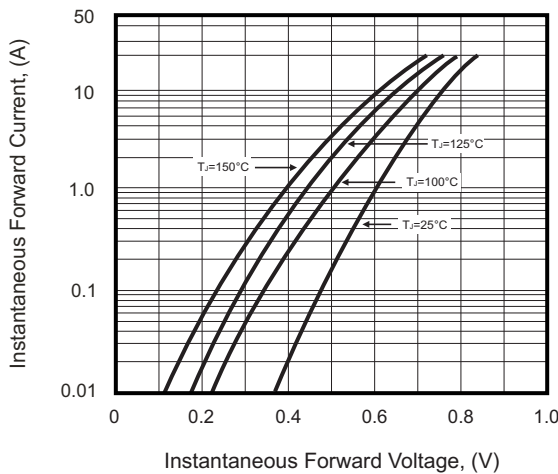
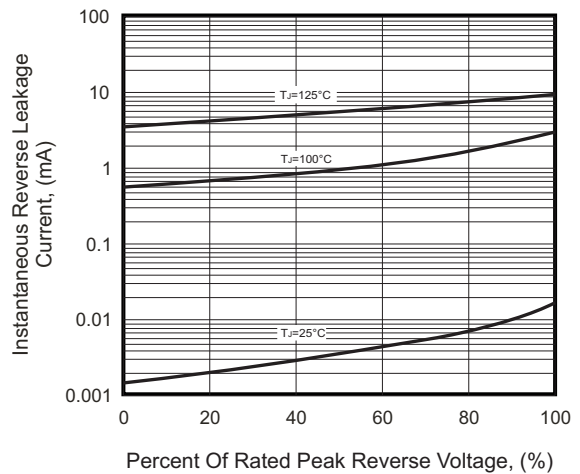
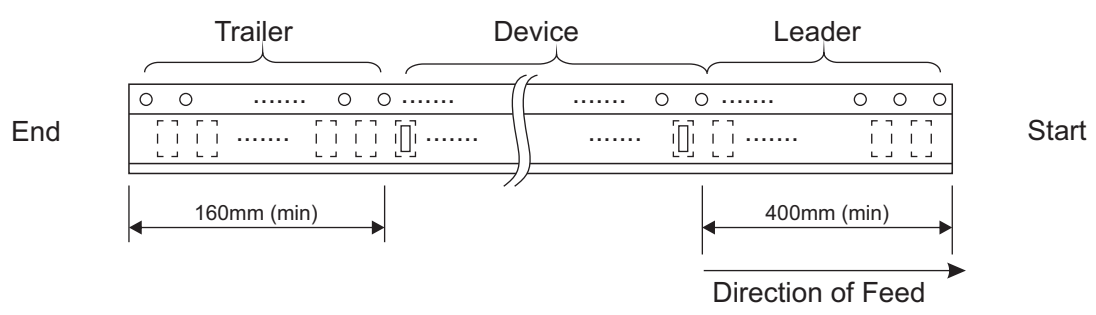
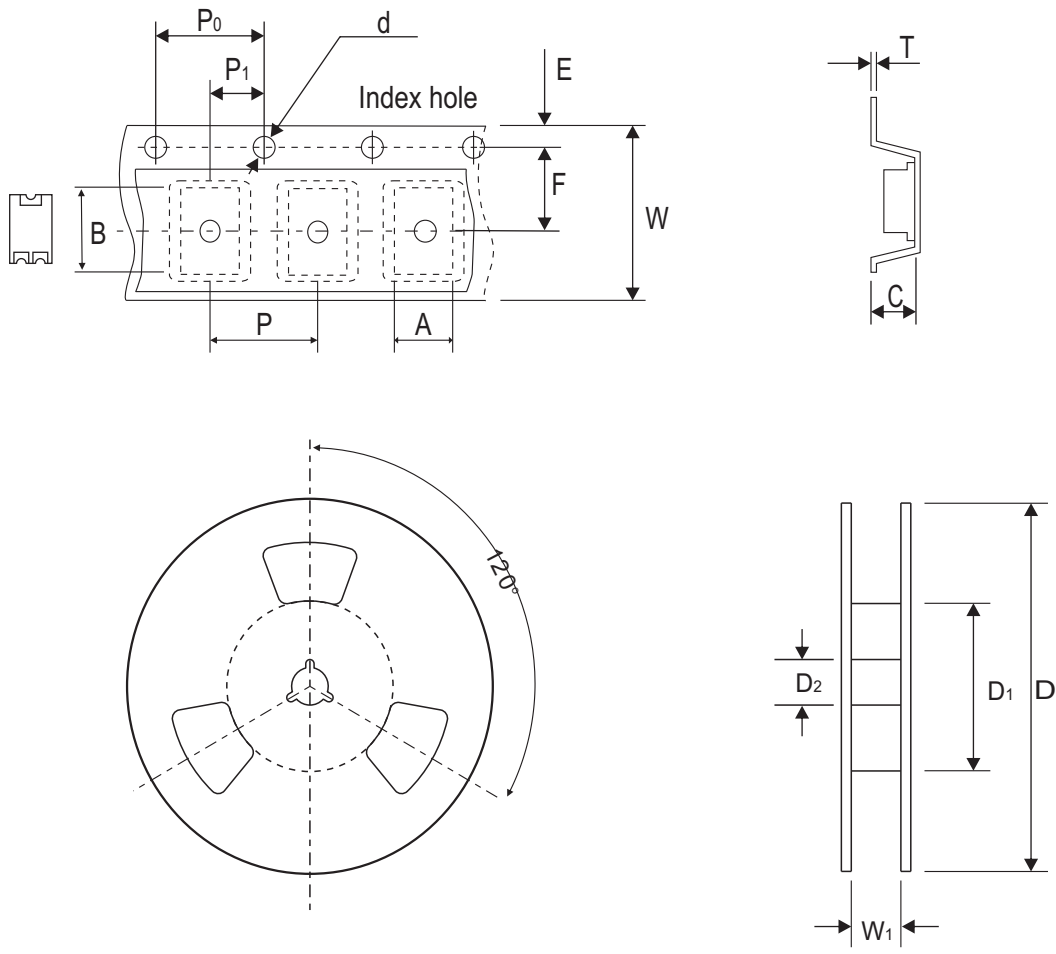


Fig.4 - Typical Reverse Characteristics





TO-277(Z3)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	4.25 ± 0.10	6.80 ± 0.10	1.45 ± 0.10	1.50 ± 0.10	330 ± 2.00	50.0 MIN.	13.0 ± 0.50
	(inch)	0.167 ± 0.004	0.268 ± 0.004	0.057 ± 0.004	0.059 ± 0.004	12.992 ± 0.079	1.969 MIN.	0.512 ± 0.020

TO-277(Z3)	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	12.00 ± 0.30	14.4 MAX.
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.472 ± 0.012	0.567 MAX.

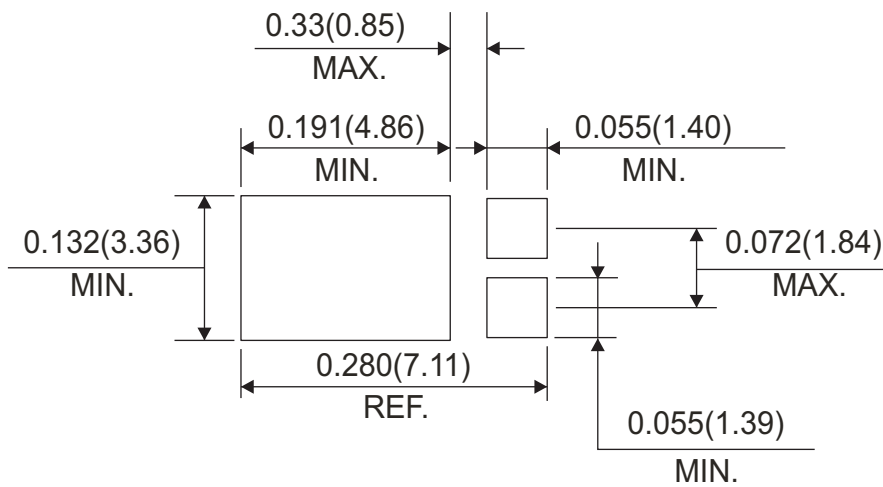
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## Marking Code



## Suggested PAD Layout



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
TO-277(Z3)	5,000	13