

## CDBZ2120L-HF Thru. CDBZ2140L-HF

Reverse Voltage: 20 to 40 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen free

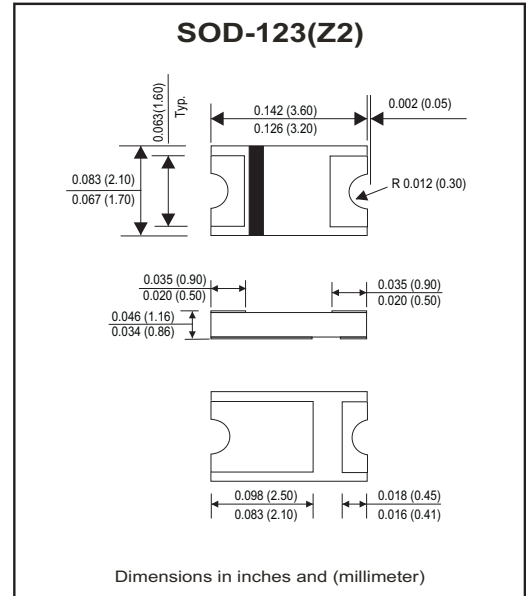


### Features

- Lead less chip form, no lead damage.
- Low power loss, High efficiency.
- High current capability, low VF.
- 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 : 0.012 grams.



### Circuit Diagram



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

Parameter	Symbol	CDBZ2120L-HF	CDBZ2140L-HF	Unit
Repetitive peak reverse voltage	VRRM	20	40	V
Average forward current	IF(AV)	1.0		A
Peak forward surge current (8.3ms single half sine-wave)	IFSM	20		A
Operating junction temperature range	TJ	-55 to +125		°C
Storage temperature range	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)	VF	IF = 0.1 A	-	0.32	-	V
		IF = 0.5 A	-	0.40	-	
		IF = 1.0 A	-	0.46	0.50	
Repetitive peak reverse current (NOTE 1)	IRRM	VR = Max. VRRM , TA= 25°C	-	0.015	0.2	mA
Junction capacitance	CJ	VR = 4V, f = 1.0 MHz	-	110	-	pF
Thermal resistance	RθJA	Junction to ambient (NOTE 2)	-	88	-	°C/W
	RθJL	Junction to lead (NOTE 2)	-	28	-	°C/W

NOTES : (1) Pulse test width PW=300usec , 1% duty cycle.  
 (2) Mounted on P.C. board with 0.2 x 0.2"(5.0 x5.0mm) copper pad areas.

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

REV:A

## RATING AND CHARACTERISTIC CURVES (CDBZ2120L-HF Thru. CDBZ2140L-HF)

Fig.1 - Typical Forward Current Derating Curve

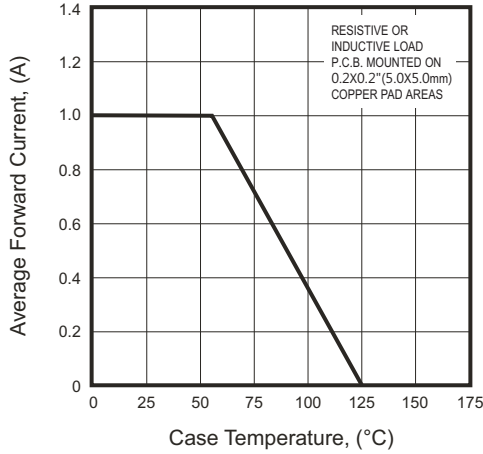


Fig.2 - Typical Forward Characteristics

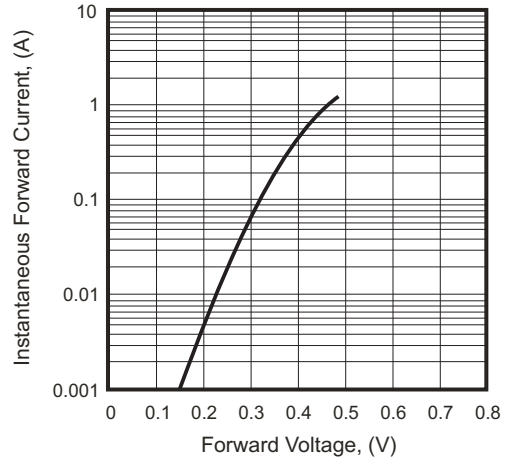


Fig.3 - Non-repetitive Forward Surge Current

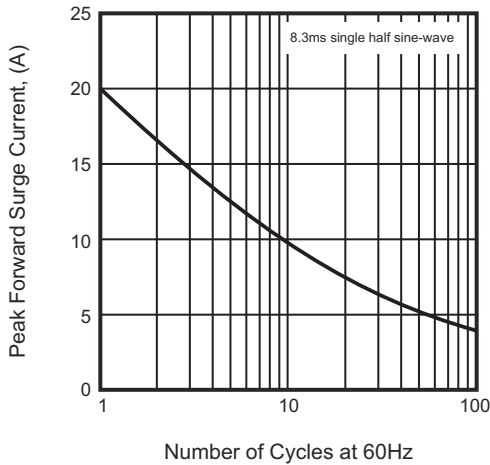


Fig.4 - Typical Reverse Characteristics

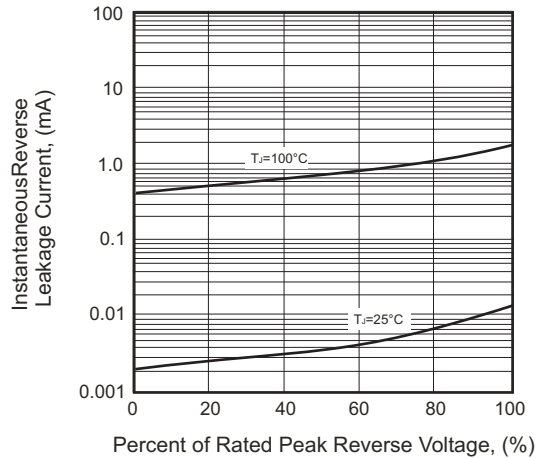
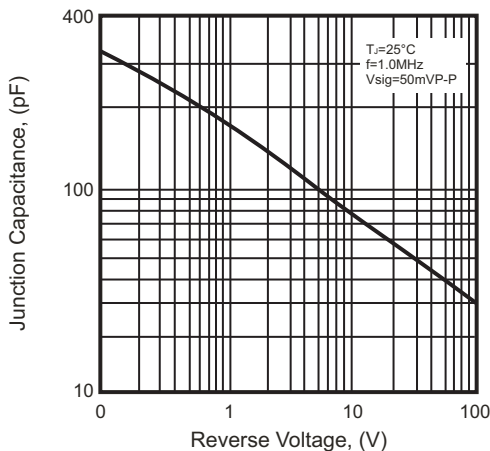


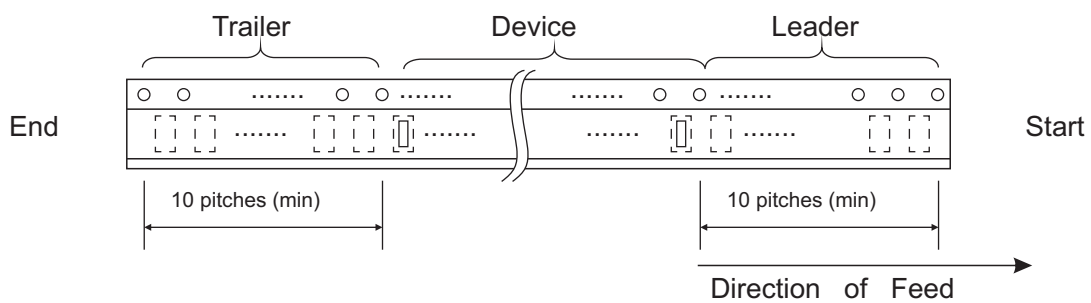
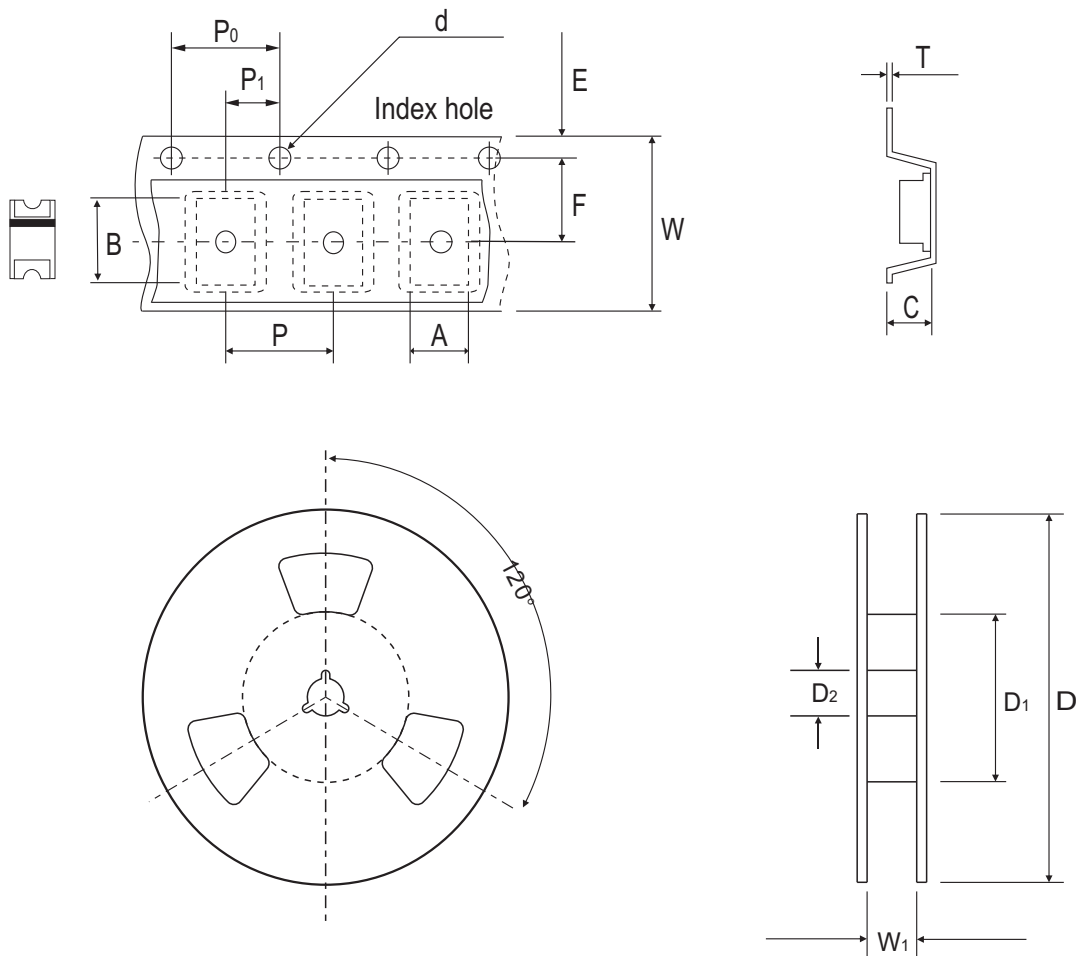
Fig.5 - Typical Junction Capacitance



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

REV:A

## Reel Taping Specification



SOD-123(Z2)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	2.20 ± 0.10	3.65 ± 0.10	1.28 ± 0.10	1.50 ± 0.10	178 ± 2.00	50.0 MIN.	13.0 ± 0.50
	(inch)	0.087 ± 0.004	0.144 ± 0.004	0.050 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	1.969 MIN.	0.512 ± 0.020

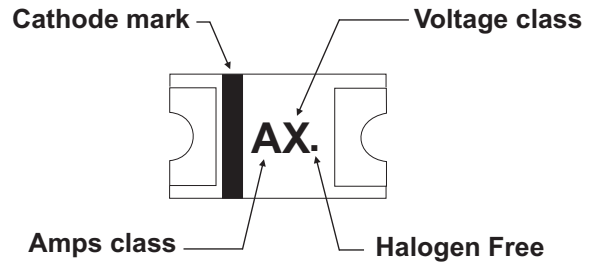
SOD-123(Z2)	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	12.00 ± 0.30	14.4 MAX.
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.472 ± 0.012	0.567 MAX.

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

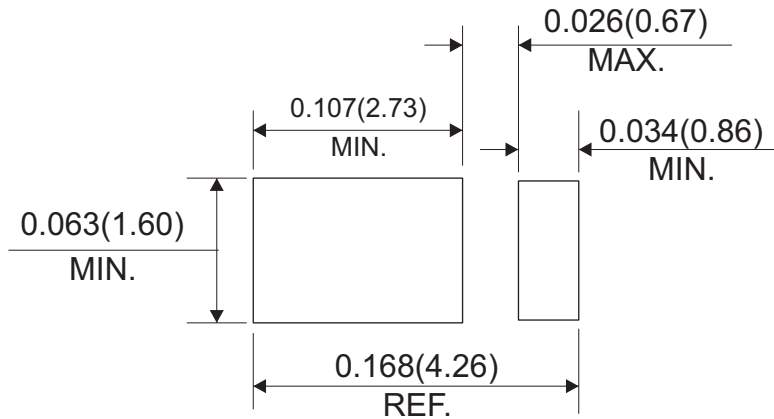
REV:A

## Marking Code

Part Number	Marking Code
CDBZ2120L-HF	A2.
CDBZ2140L-HF	A4.



## Suggested PAD Layout



- NOTES : 1. Dimensions in inches and (millimeter)  
 2. The Layout is just for reference.

## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOD-123(Z2)	3,000	7