

## CDBZ1140L-HF

**Reverse Voltage: 40 Volts**  
**Forward Current: 1.0 Amp**  
**RoHS Device**  
**Halogen free**



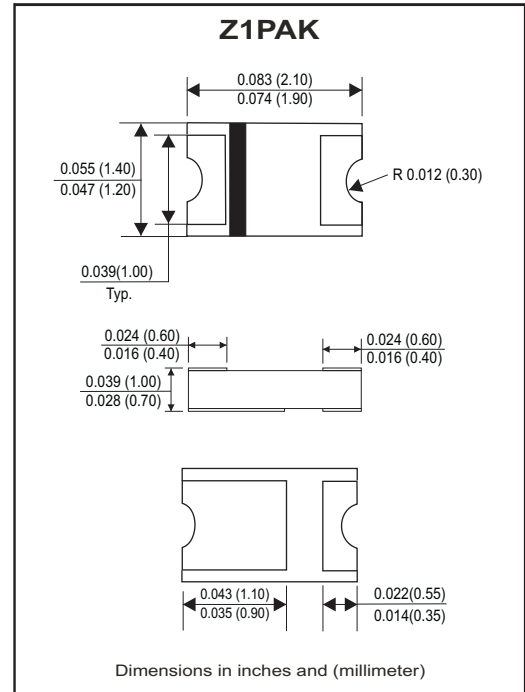
### Features

- Lead less chip form, no lead damage.
- Low power loss, High efficiency.
- High current capability, low VF.
- Plastic package has UL 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.
- Polarity : Laser Cathode band marking
- Weight : 0.005 grams(approx.).

### Circuit Diagram



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

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	VRRM	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 (Note1)	VF	IF = 1.0 A	-	0.37	0.38	V
Repetitive peak reverse current (Note1)	IRRM	VR = Max. VRRM, TA= 25°C	-	0.50	1.0	mA
Junction capacitance	CJ	VR = 4V, f = 1.0 MHz	-	115	-	pF
Thermal resistance	RθJA	Junction to ambient	-	88	-	°C/W
	RθJL	Junction to lead	-	28	-	°C/W

NOTES : (1) Pulse test width PW=300usec , 1% duty cycle.  
 (2) Mounted on P.C. board with 5.0X5.0mm copper pad areas.

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

REV:B

## RATING AND CHARACTERISTIC CURVES (CDBZ1140L-HF)

Fig.1 - Forward Current Derating Curve

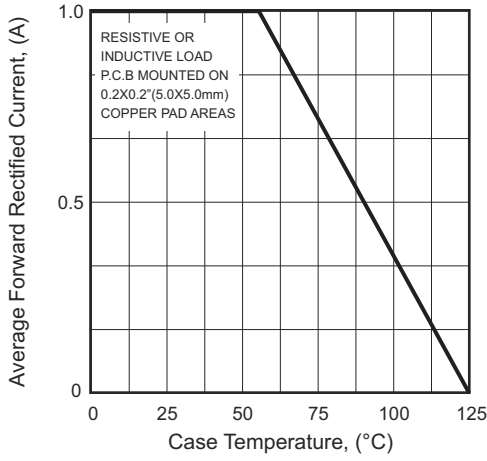


Fig.2- Maximum Non-Repetitive Peak Forward Surge Current

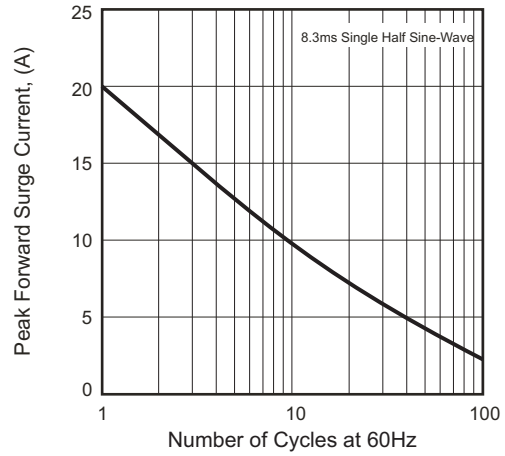


Fig.3 - Typical Instantaneous Forward Characteristics

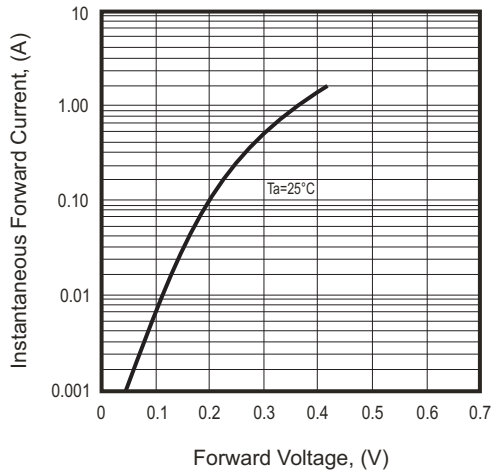


Fig.4 - Typical Reverse Characteristics

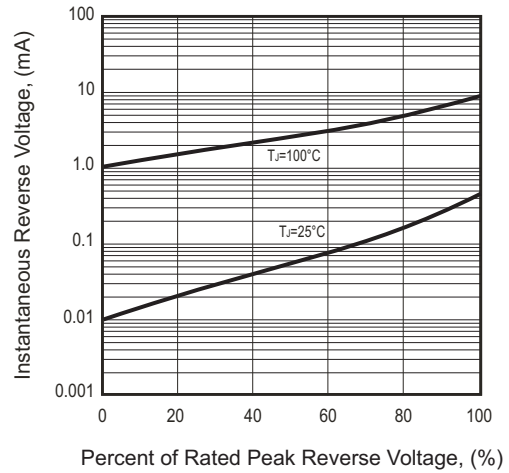
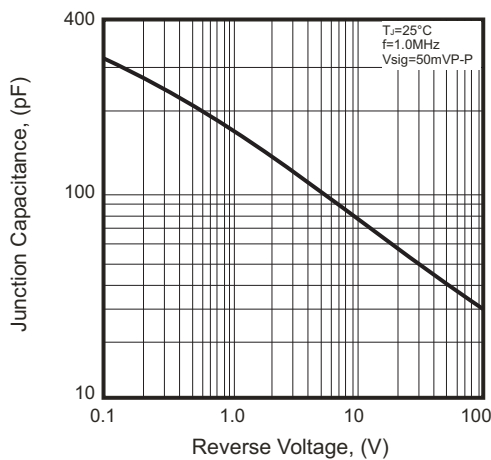
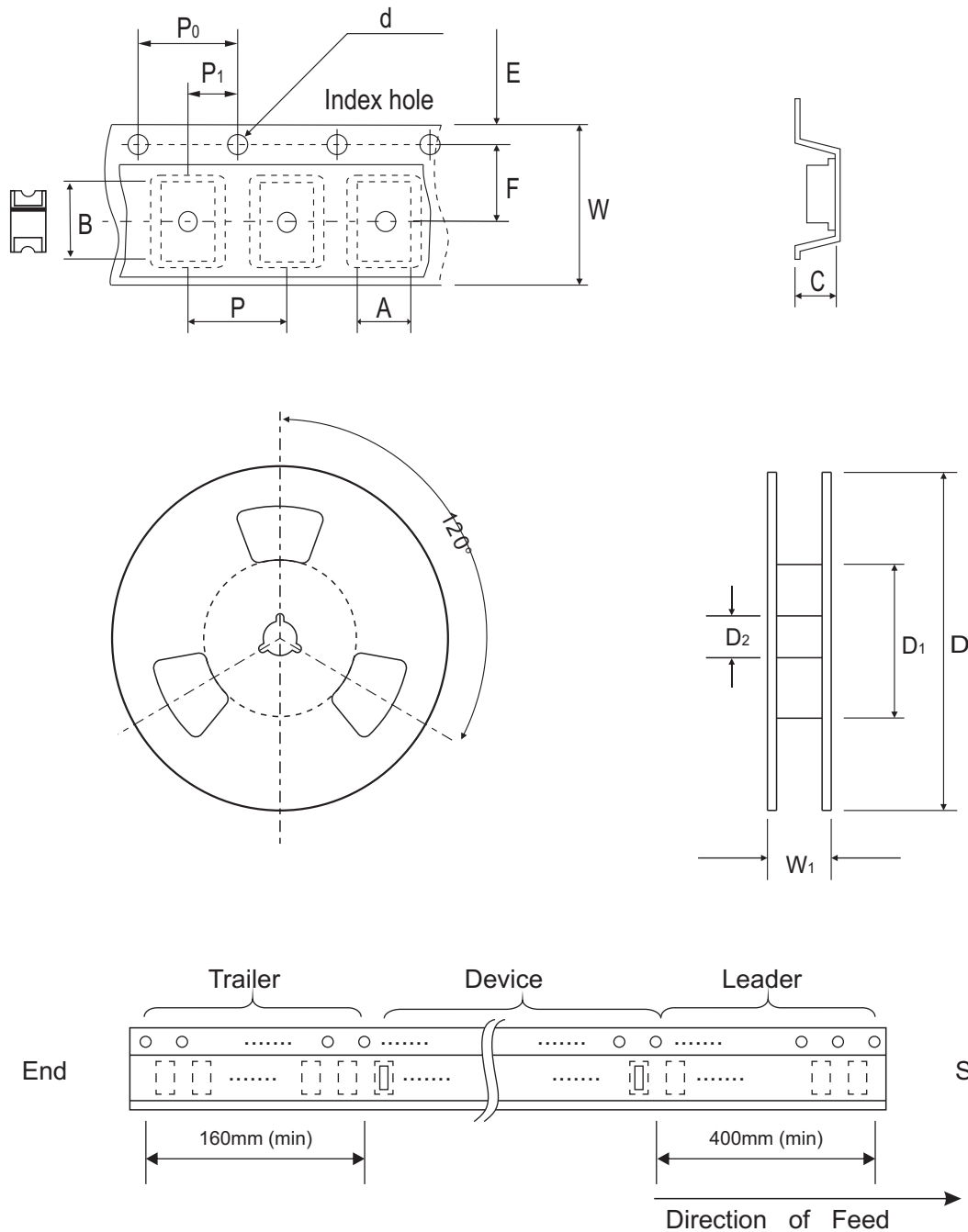


Fig.5 - Typical Junction Capacitance



## Reel Taping Specification



Z1PAK	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	1.45 ± 0.10	2.25 ± 0.10	1.10 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	50.00 MIN.	13.50 ± 0.50
	(inch)	0.057 ± 0.004	0.089 ± 0.004	0.043 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	1.969 MIN.	0.531 ± 0.020

Z1PAK	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 ± 0.30	12.00 ± 0.50
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 ± 0.012	0.472 ± 0.020

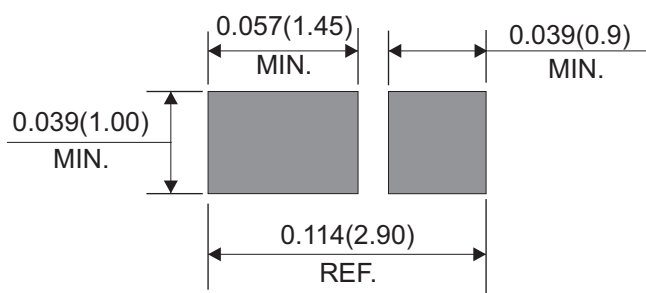
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## Marking Code

Part Number	Marking Code
CDBZ1140L-HF	A 4L.



## Suggested PAD Layout



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOD-323/Z1	3,000	7