

## CDBZ31045L-HF

Reverse Voltage: 45 Volts

Forward Current: 10 Amp

RoHS Device

Halogen free



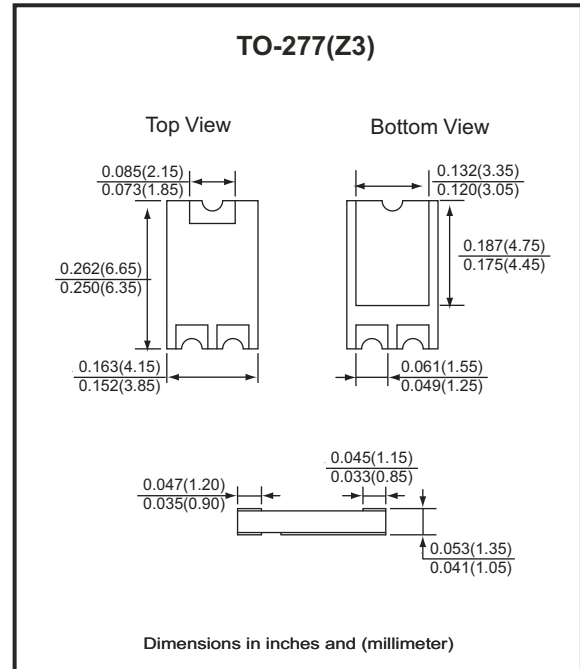
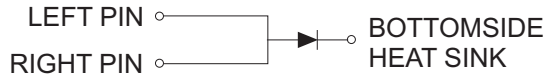
### Features

- 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.

### Circuit Diagram



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

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	VRRM	45	V
Average forward current	IF(AV)	10	A
Peak forward surge current (8.3ms single half sine-wave)	IFSM	200	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)	VF	@ IF = 10 A TJ= 25°C TJ= 125°C		0.43 0.42	0.46 -	V
Repetitive peak reverse current	IR	@ VR = Max. VRRM TJ= 25°C TJ= 100°C		0.12 15	0.35 50	mA
Thermal resistance	RθJA	Junction to ambient (NOTE 2)		122		°C/W
	RθJC	Junction to case (NOTE 2)		18		°C/W

NOTES : (1) Pulse test width PW=300usec , 1% duty cycle.  
(2) Mounted on P.C.B. with (3.36x4.86mm & 1.39\*1.4mm )copper pad areas.

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

REV:A

## RATING AND CHARACTERISTIC CURVES (CDBZ31045L-HF)

Fig.1 - Typical Forward Current Derating Curve

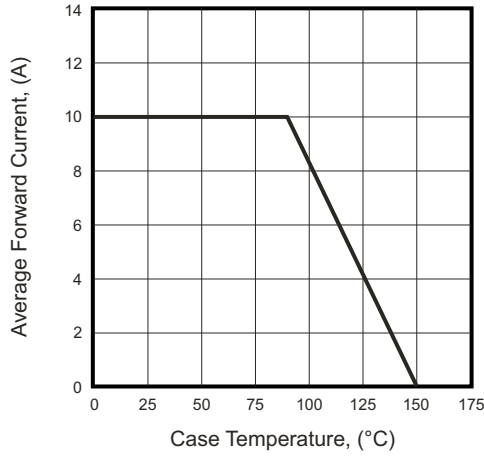


Fig.2 - Typical Instantaneous Forward Characteristics

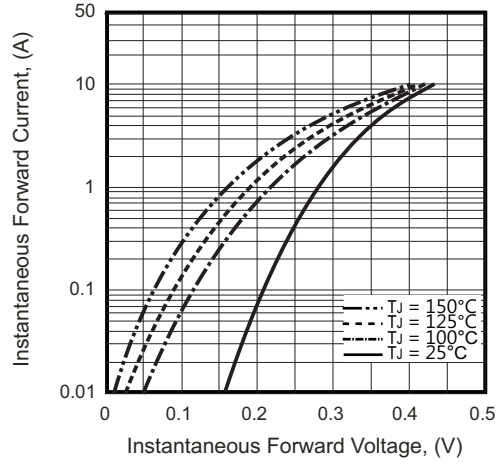


Fig.3 - Maximum Non-repetitive Peak Forward Surge Current

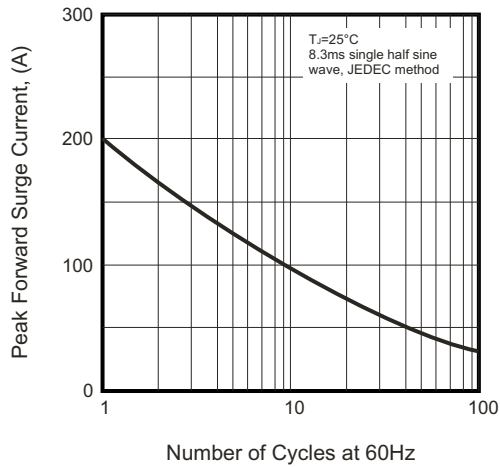
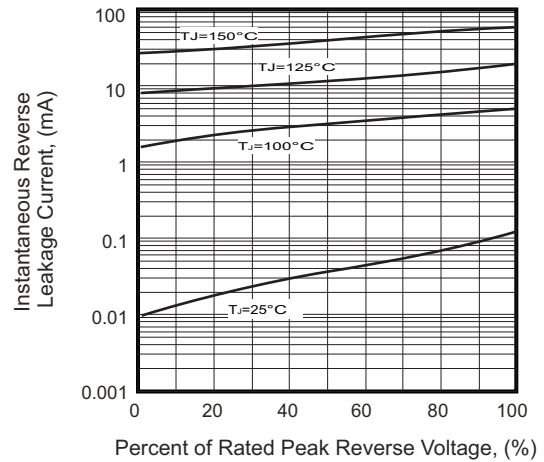
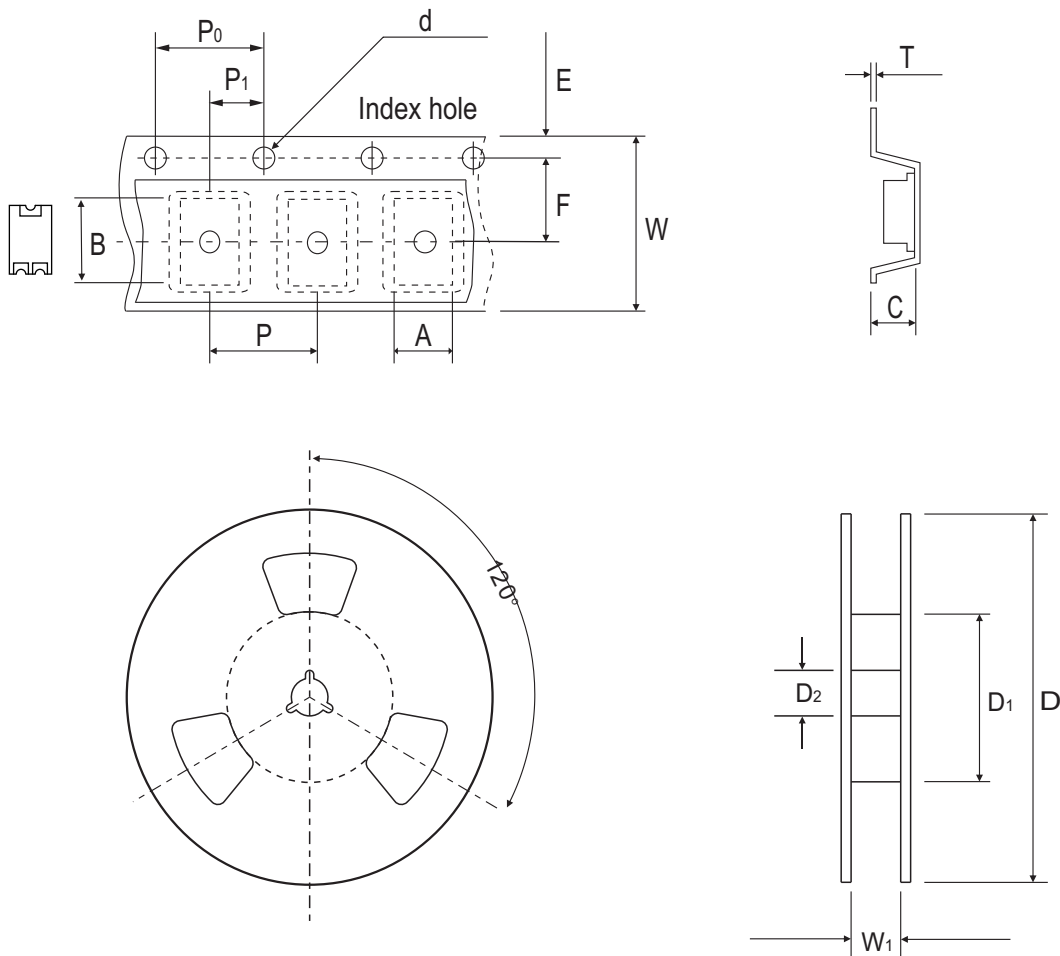


Fig.4 - Typical Reverse Characteristics



## Reel Taping Specification



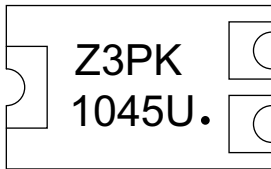
TO-277(Z3)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	4.25 ± 0.10	6.80 ± 0.10	1.45 ± 0.10	1.50 ± 0.10	330 ± 2.00	50.0 MIN.	13.0 ± 0.50
	(inch)	0.167 ± 0.004	0.268 ± 0.004	0.057 ± 0.004	0.059 ± 0.004	12.992 ± 0.079	1.969 MIN.	0.512 ± 0.020

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.

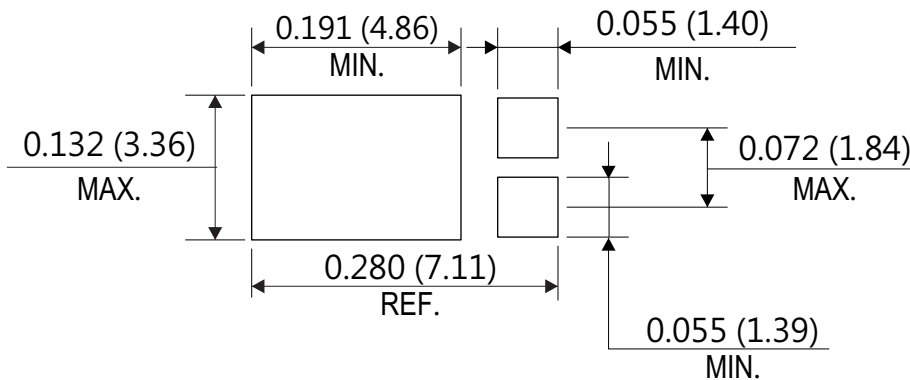
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## Marking Code



## Suggested PAD Layout



## Standard Packaging

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