

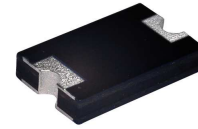
## CDBZ5T1045-HF

Reverse Voltage: 45 Volts

Forward Current: 10 Amp

RoHS Device

Halogen free



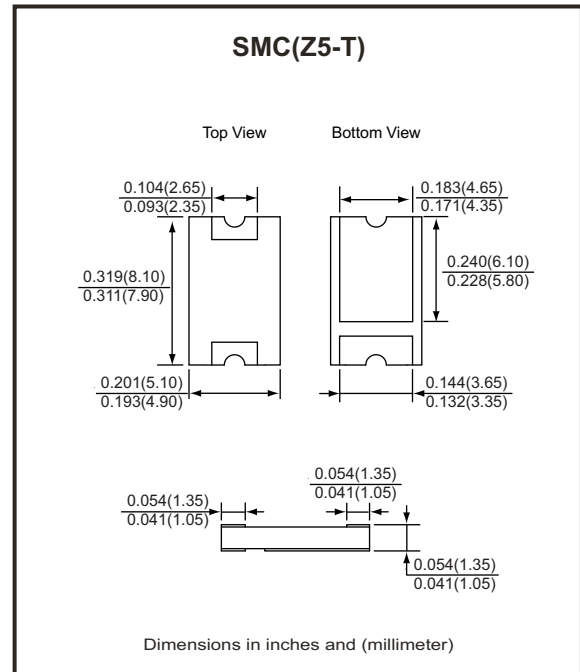
### Features

- 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.
- Weight: 0.14 grams (approx).

### 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	300	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	-	0.48	0.55	V
Repetitive peak reverse current	IRRM	@ VR = Max. VRRM, Ta= 25°C	-	20	100	uA
Thermal resistance	RθJA	Junction to ambient (NOTE )	-	79	-	°C/W
	RθJC	Junction to case (NOTE )	-	17	-	°C/W

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

## RATING AND CHARACTERISTIC CURVES (CDBZ5T1045-HF)

Fig.1- Forward Current Derating Curve

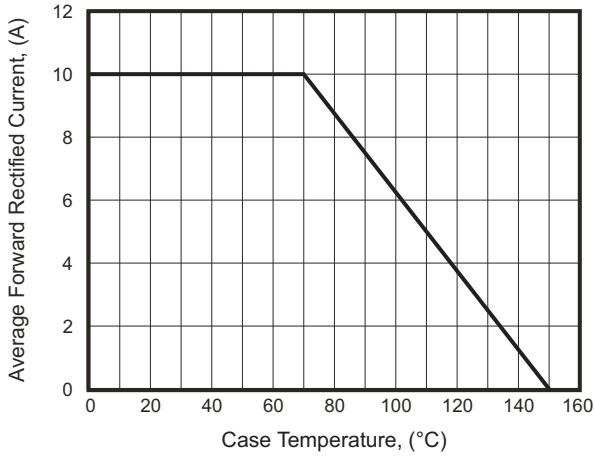


Fig.2- Maximum Non-Repetitive Peak Forward Surge Current

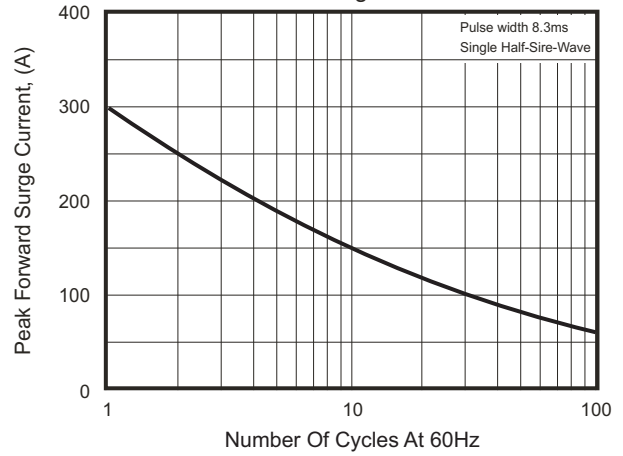


Fig.3- Typical Instantaneous Forward Characteristics

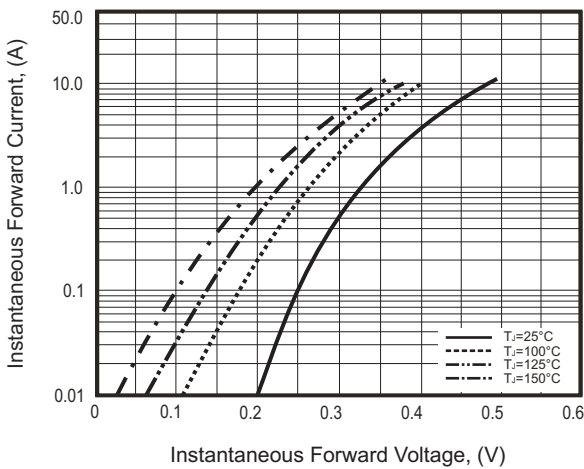
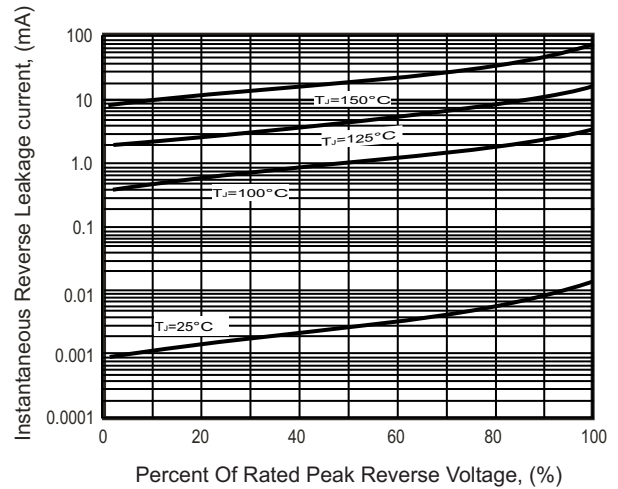
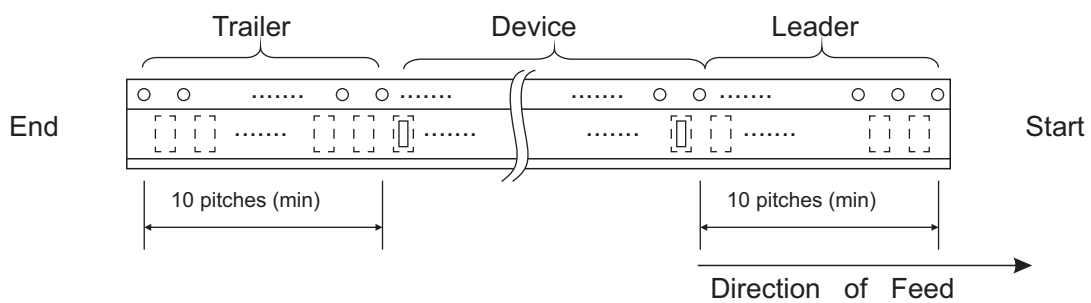
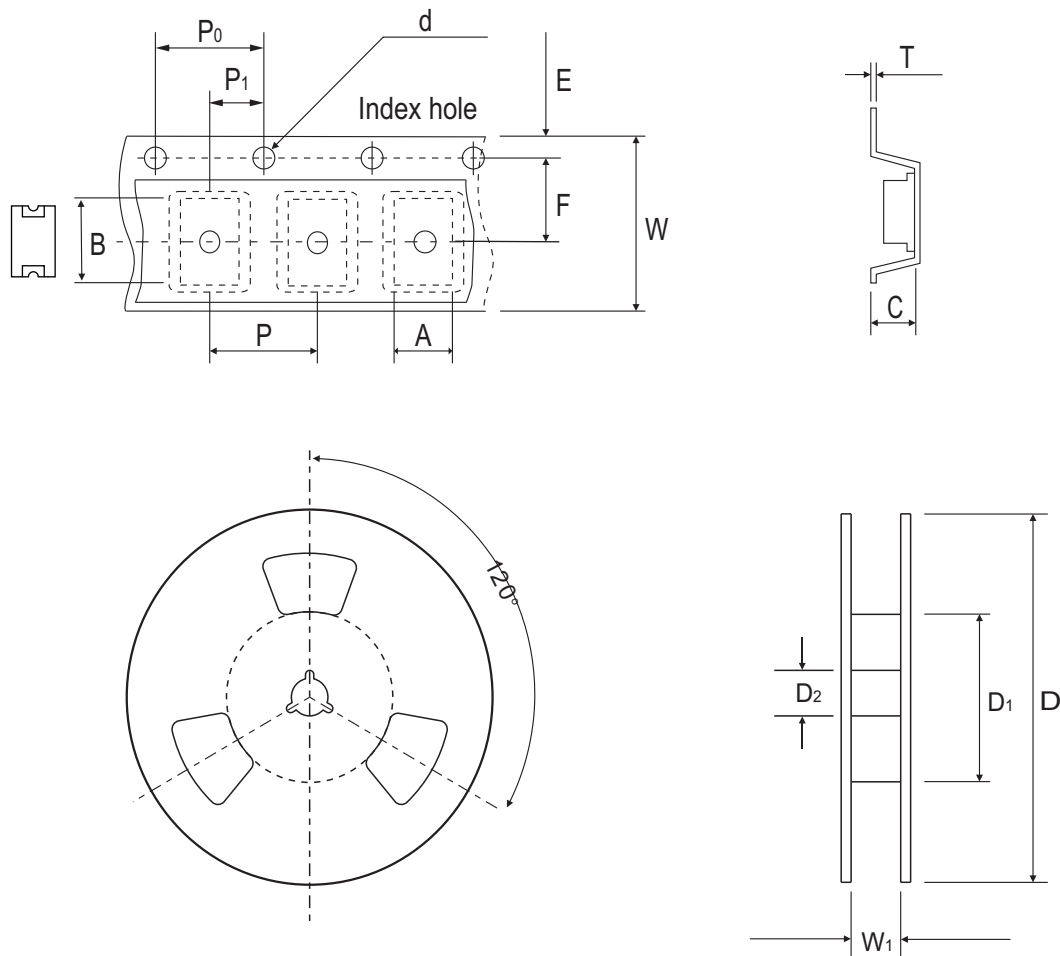


Fig.4- Typical Reverse Characteristics



## Reel Taping Specification



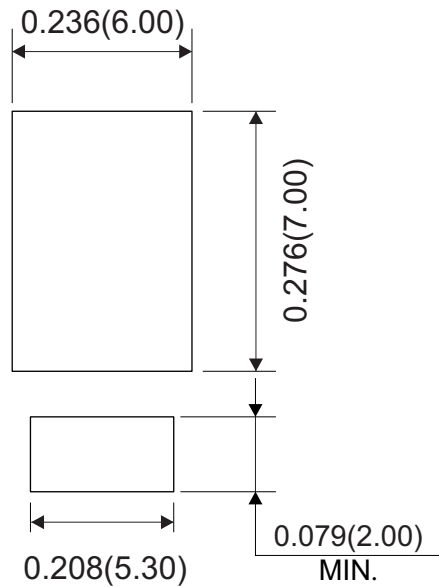
SMC(Z5-T)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	5.15 ± 0.10	8.15 ± 0.10	1.45 ± 0.10	1.55 ± 0.05	330 ± 2.00	50.0 MIN.	13.0 ± 0.50
	(inch)	0.203 ± 0.004	0.321 ± 0.004	0.057 ± 0.004	0.061 ± 0.002	12.992 ± 0.079	1.969 MIN.	0.512 ± 0.020

SMC(Z5-T)	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	7.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	16.00 ± 0.30	18.40 MAX.
	(inch)	0.069 ± 0.004	0.295 ± 0.004	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.630 ± 0.012	0.724 MAX.

## Marking Code



## Suggested PAD Layout



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SMC(Z5-T)	3,000	13