

## CDBZ310200H-HF

Reverse Voltage: 200 Volts

Forward Current: 10 Amp

RoHS Device

Halogen free



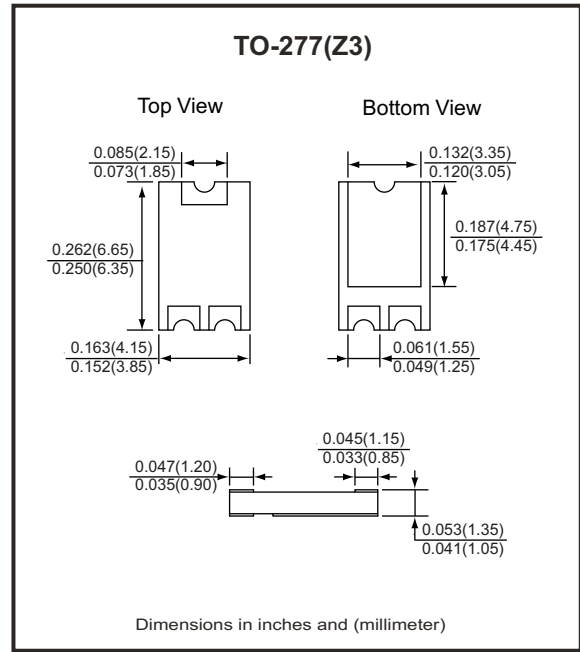
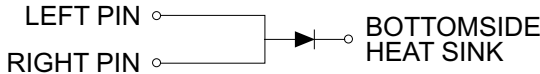
### Features

- 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: 0.08 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)   | 10          | A    |
| Peak forward surge current (8.3ms single half sine-wave) | IFSM     | 250         | 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                               | -    | 0.79      | 0.82       | V    |
| Repetitive peak reverse current | IRRM   | VR = Max. VRRM<br>TA= 25°C<br>TA= 125°C | -    | 0.02<br>- | 0.10<br>50 | mA   |
| Thermal resistance              | RθJA   | Junction to ambient (NOTE 2)            | -    | 60        | -          | °C/W |
|                                 | RθJL   | Junction to lead (NOTE 2)               | -    | 22        | -          | °C/W |
|                                 | RθJC   | Junction to case (NOTE 2)               | -    | 20        | -          | °C/W |

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

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

REV:A

## RATING AND CHARACTERISTIC CURVES (CDBZ310200H-HF)

Fig.1- Forward Current Derating Curve

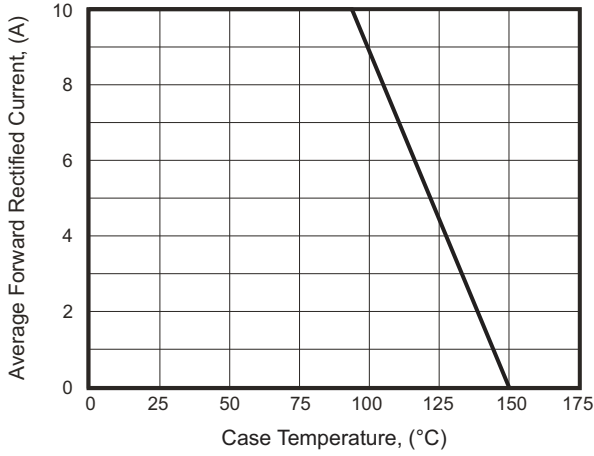


Fig.2- Maximum Non-Repetitive Peak Forward Surge Current

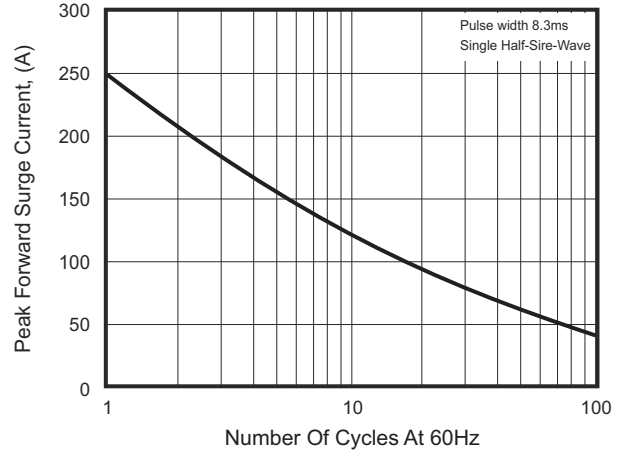


Fig.3- Typical Instantaneous Forward Characteristics

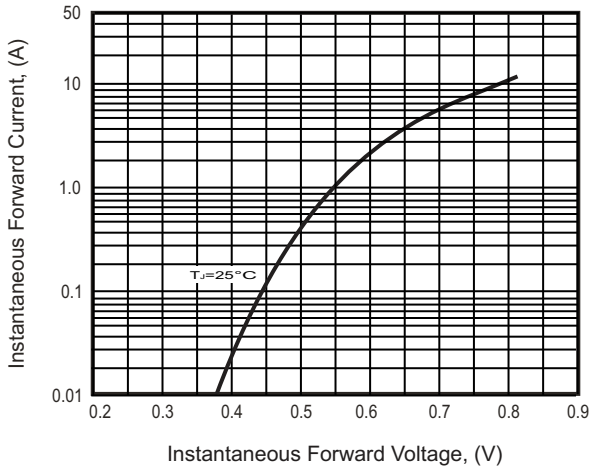
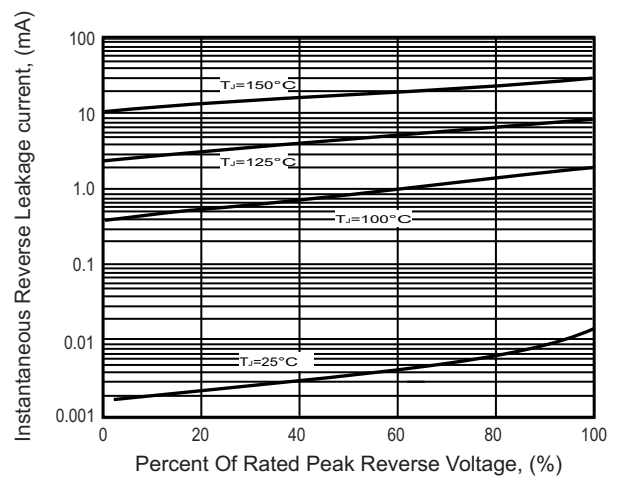
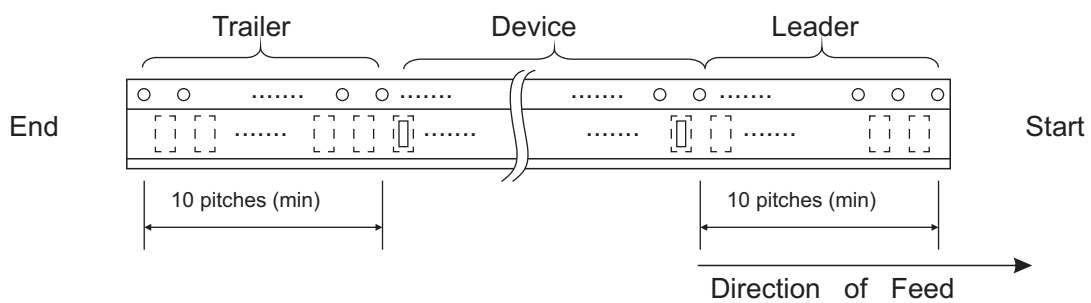
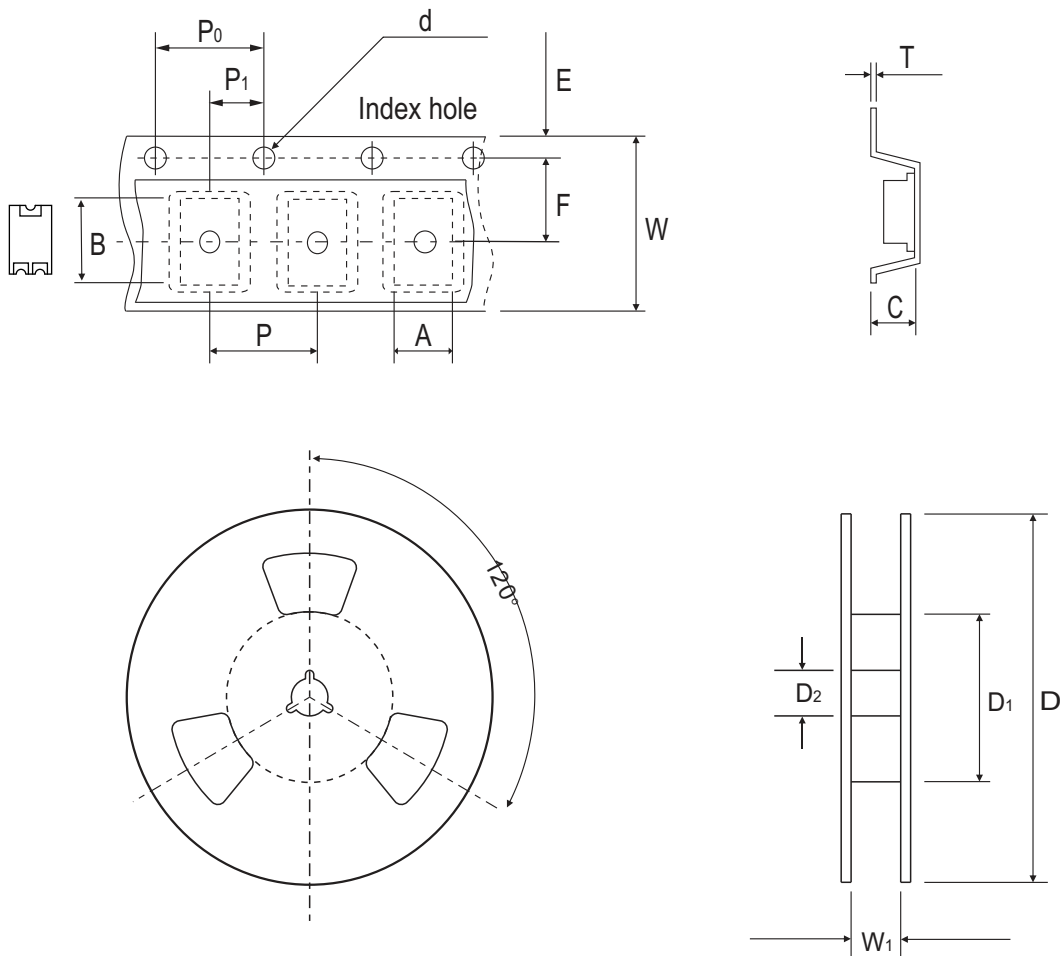


Fig.4- Typical Reverse Characteristics



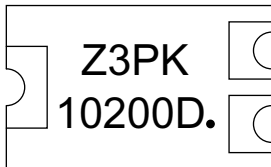
## Reel Taping Specification



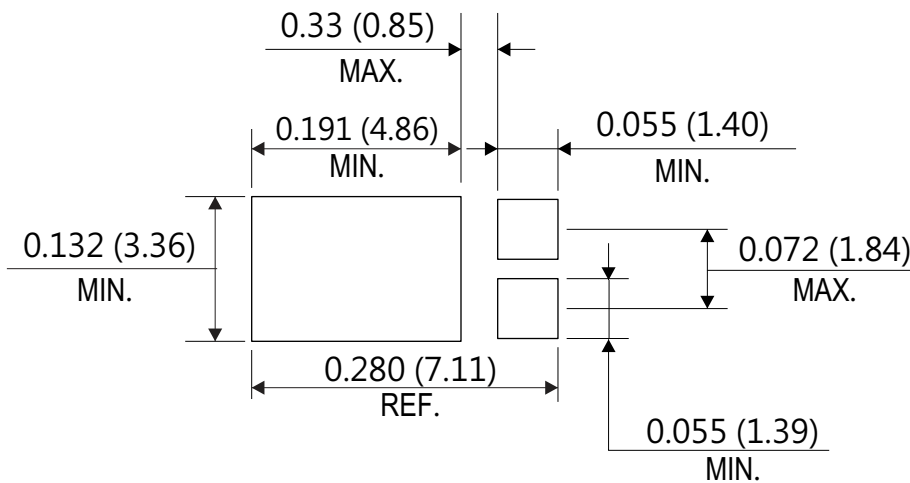
| TO-277(Z3) | SYMBOL | A             | B             | C             | d             | D              | D <sub>1</sub> | D <sub>2</sub> |
|------------|--------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|
|            | (mm)   | 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.     |

## Marking Code



## Suggested PAD Layout



## Standard Packaging

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