

CDBZ5T30100-HF

Reverse Voltage: 100 Volts

Forward Current: 30 Amp

RoHS Device

Halogen free



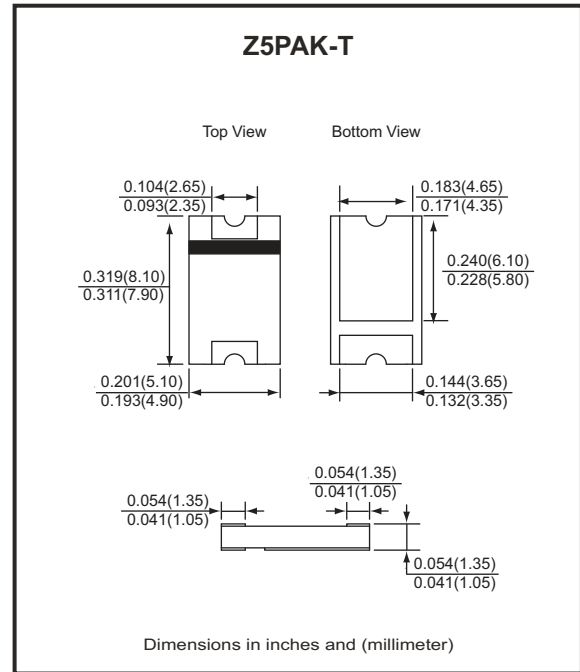
Features

- 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 | 100 | V |
| Average forward current | IF(AV) | 30 | A |
| Peak forward surge current (8.3ms single half sine-wave) | IFSM | 350 | A |
| Junction temperature range | TJ | -55 to +150 | °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 = 20 A @ IF = 30 A | - | 0.76 0.82 | 0.80 0.85 | V |
| Repetitive peak reverse current | IRRM | @ VR = Max. VRRM, TA = 25°C | - | 3 | 50 | uA |
| Thermal resistance | RθJA | Junction to ambient (NOTE) | - | 78 | - | °C/W |
| | RθJC | Junction to case (NOTE) | - | 13 | - | °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.

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

REV:C

RATING AND CHARACTERISTIC CURVES (CDBZ5T30100-HF)

Fig.1- Forward Current Derating Curve

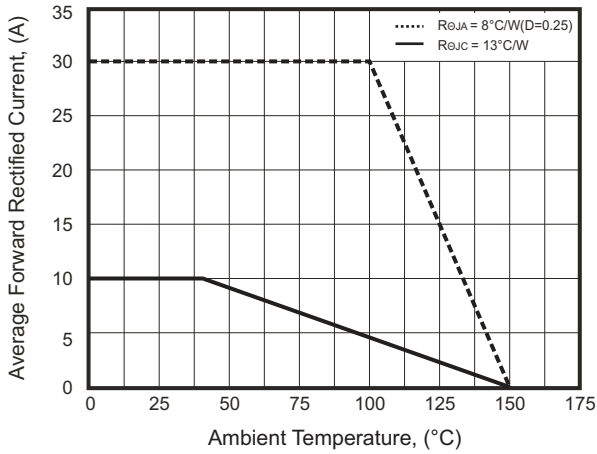


Fig.2- Maximum Non-Repetitive Peak Forward Surge Current

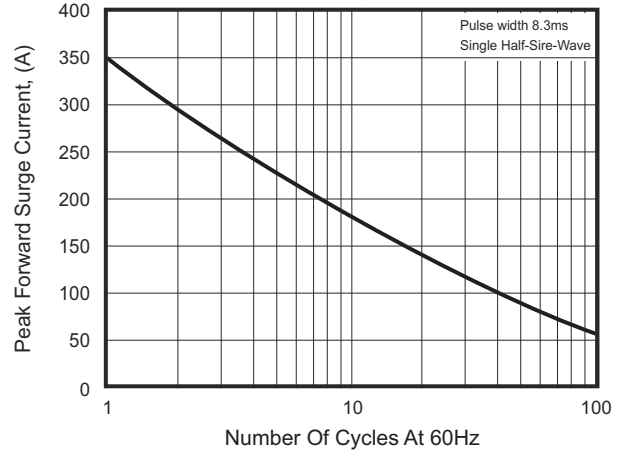


Fig.3- Typical Instantaneous Forward Characteristics

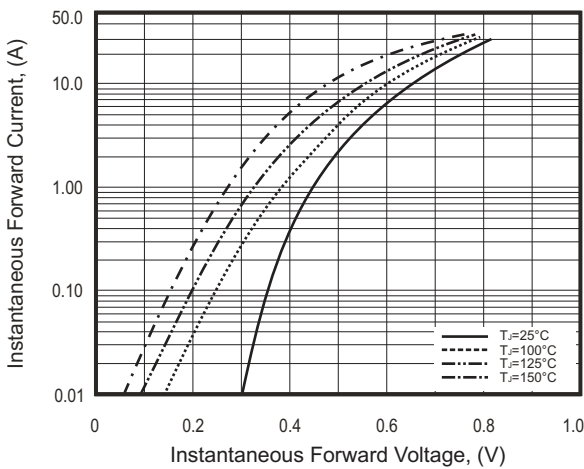
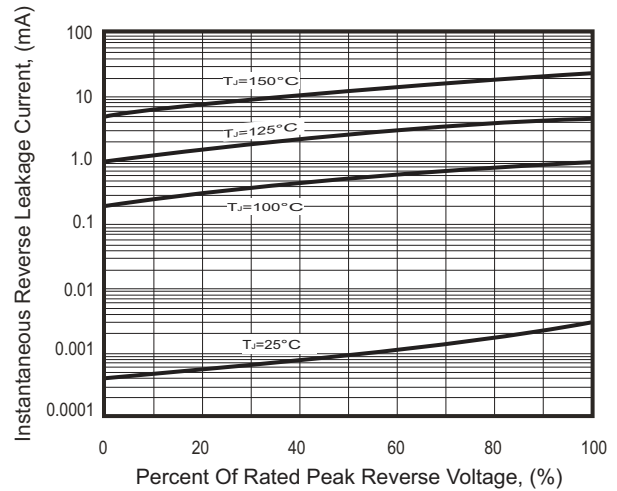
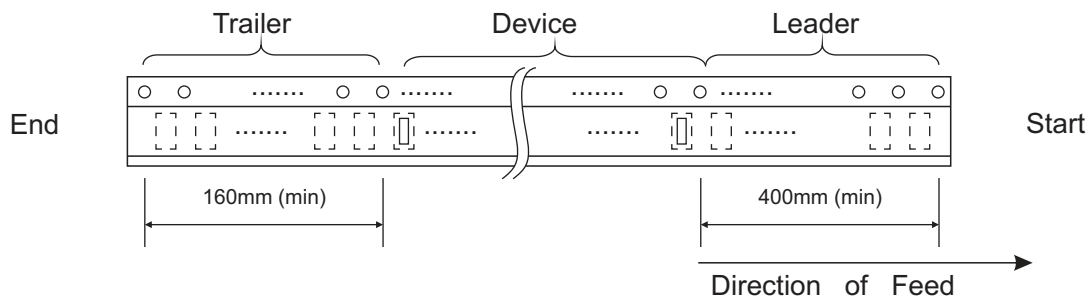
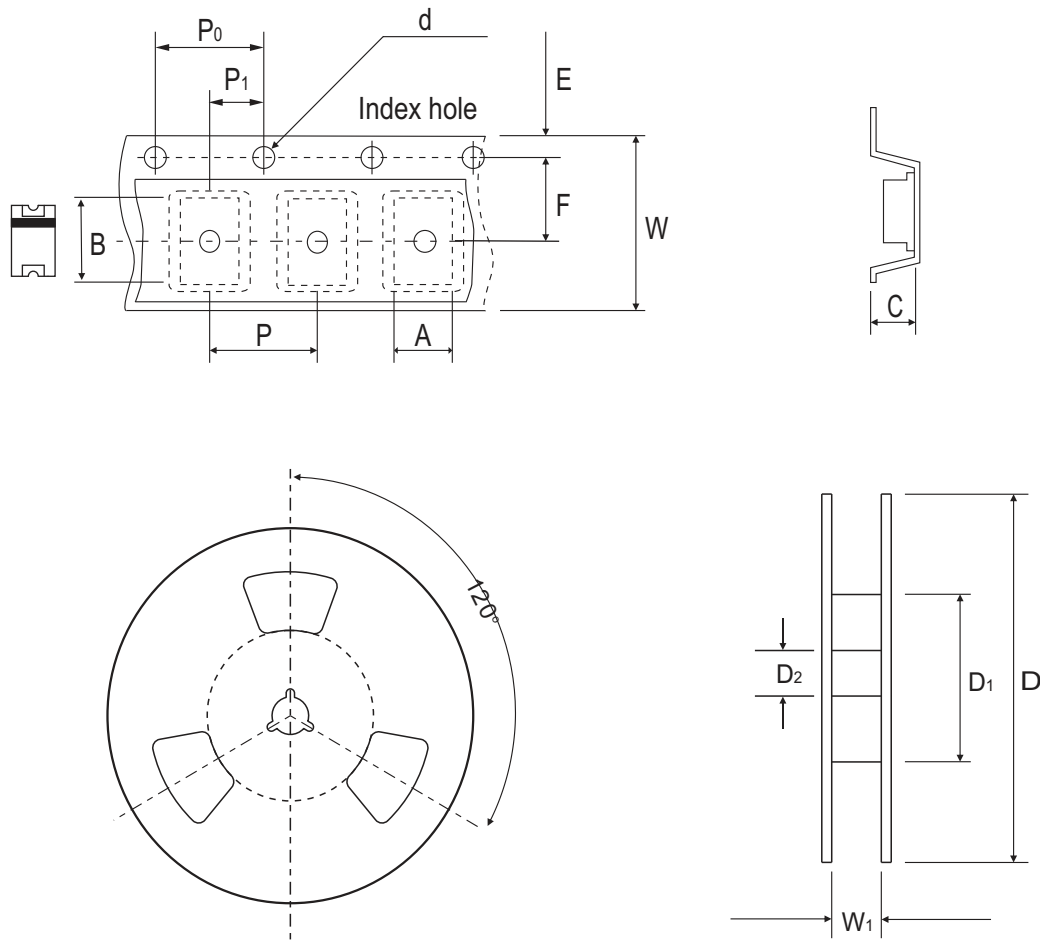


Fig.4- Typical Reverse Characteristics



Reel Taping Specification



| Z5PAK-T | SYMBOL | A | B | C | d | D | D ₁ | D ₂ |
|---------|--------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|
| | (mm) | 5.15 ± 0.10 | 8.15 ± 0.10 | 1.45 ± 0.10 | 1.55 ± 0.05 | 330.00 ± 2.00 | 50.00 MIN. | 13.00 ± 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 |

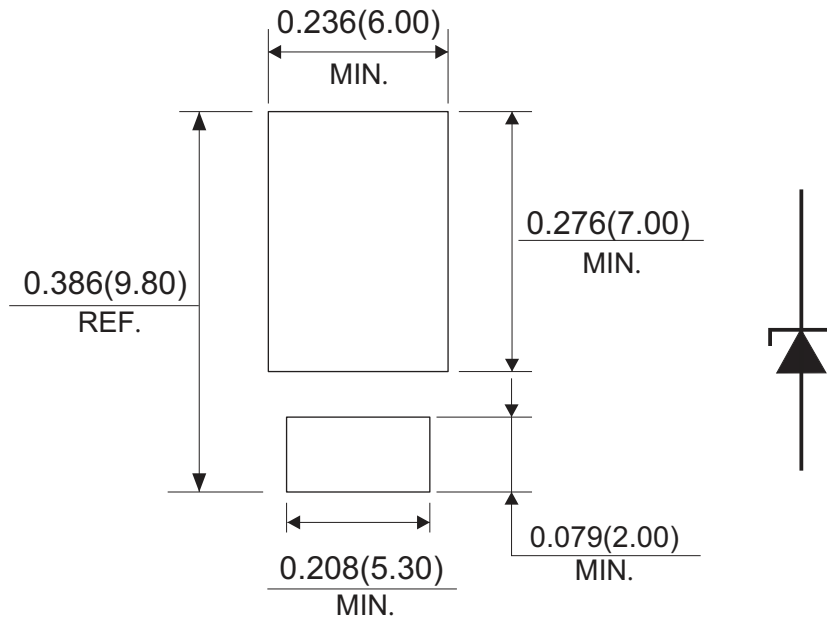
| Z5PAK-T | SYMBOL | E | F | P | P ₀ | P ₁ | W | W ₁ |
|---------|--------|---------------|---------------|---------------|----------------|----------------|---------------|----------------|
| | (mm) | 1.75 ± 0.10 | 7.50 ± 0.10 | 8.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.10 | 16.00 ± 0.30 | 22.70 MAX. |
| | (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 | 0.894 MAX. |

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Marking Code



Suggested PAD Layout



Standard Packaging

| Case Type | REEL PACK | |
|-----------|--------------|------------------|
| | REEL (pcs) | Reel Size (inch) |
| Z5PAK-T | 3,000 | 13 |