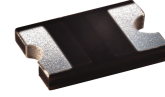


ACDBCT320-HF Thru. ACDBCT3100-HF

Forward current: 3.0A

Reverse voltage: 20 to 100V

RoHS Device
Halogen Free

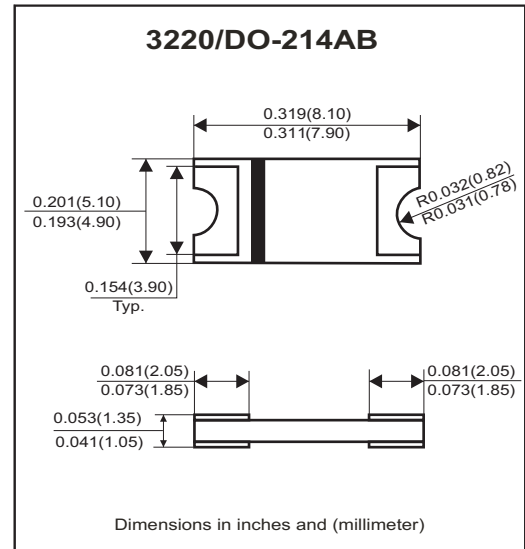


Features

- 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.
- Comply with AEC-Q101

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: 0.093 grams (approx).



Circuit diagram



Maximum Ratings (At Ta=25°C, unless otherwise noted)

| Parameter | Symbol | ACDBCT320-HF | ACDBCT340-HF | ACDBCT360-HF | ACDBCT3100-HF | Unit |
|---|--------------------|--------------|--------------|--------------|---------------|------|
| Non-repetitive peak reverse voltage | V _{RM} | 20 | 40 | 60 | 100 | V |
| Average forward current | I _{F(AV)} | 3 | | | | A |
| Peak forward surge current @8.3ms single half sine-wave | I _{FSM} | 100 | | | | A |
| Operating junction temperature range | T _J | -55 to +125 | | -55 to +150 | | °C |
| Storage temperature | T _{STG} | -55 ~ +150 | | | | °C |

Electrical Characteristics (At Ta=25°C, unless otherwise noted)

| Parameter | Conditions | Type | Symbol | Min. | Typ. | Max. | Unit |
|------------------------------|--|----------------------|------------------|------|-------|------|------|
| Forward voltage (Note1) | I _F =0.5A I _F =1.0A I _F =3.0A | ACDBCT320-HF | V _F | - | 0.33 | - | V |
| | | / | | - | 0.38 | - | |
| | | ACDBCT340-HF | | - | 0.47 | 0.50 | |
| | ACDBCT360-HF | I _F =0.5A | | - | 0.38 | - | |
| | | I _F =1.0A | | - | 0.48 | - | |
| | | I _F =3.0A | | - | 0.65 | 0.70 | |
| ACDBCT3100-HF | I _F =0.5A | - | 0.48 | - | | | |
| | I _F =1.0A | - | 0.58 | - | | | |
| | I _F =3.0A | - | 0.78 | 0.85 | | | |
| Reverse peak reverse current | V _R =Max.V _{RRM} , Ta=25°C | | I _{RRM} | - | 0.025 | 0.5 | mA |
| Junction capacitance | V _R =4V, f=1.0MHz | | C _j | - | 180 | - | pF |
| Thermal resistance | Junction to ambient (Note 2) | | R _{θJA} | - | 55 | - | °C/W |
| | Junction to lead (Note 2) | | R _{θJL} | - | 17 | - | °C/W |

Notes: (1) Pulse test width pw=300usec, 1% duty cycle.

(2) Mounted on P.C. board with 0.2*0.2"(5.0*5.0mm) copper pad areas.

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

REV:A

RATING AND CHARACTERISTIC CURVES (ACDBCT320-HF Thru. ACDBCT3100-HF)

Fig.1- Typical Forward Current Derating Curve

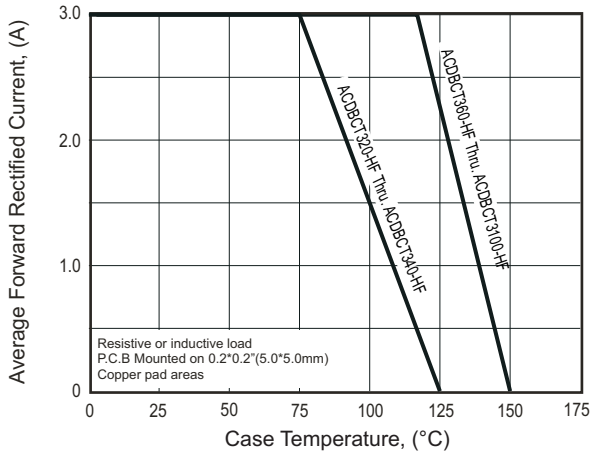


Fig.2- Maximum Non-Repetitive Peak Forward Surge Current

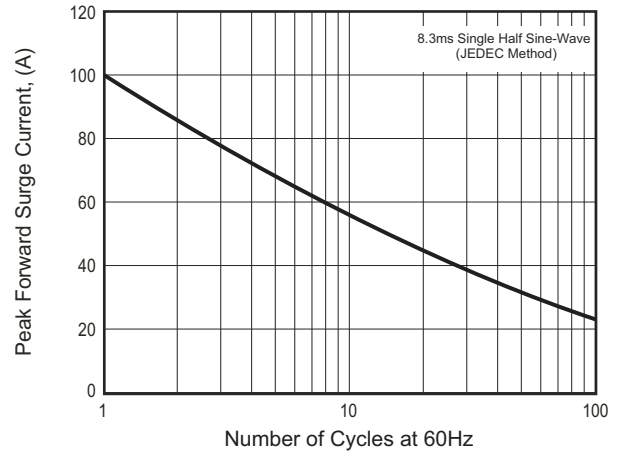


Fig.3- Typical Instantaneous Forward Characteristics

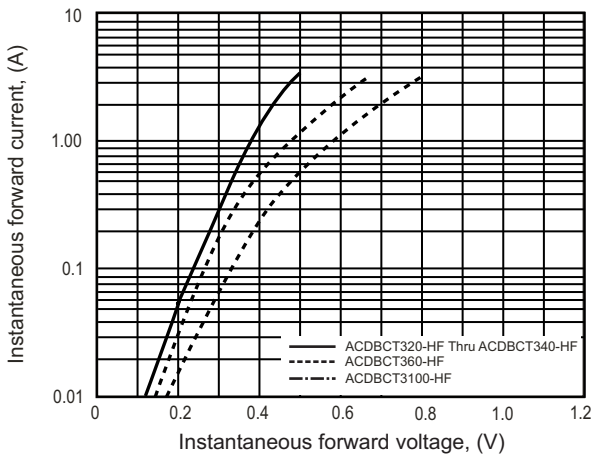


Fig.4- Typical Reverse Characteristics

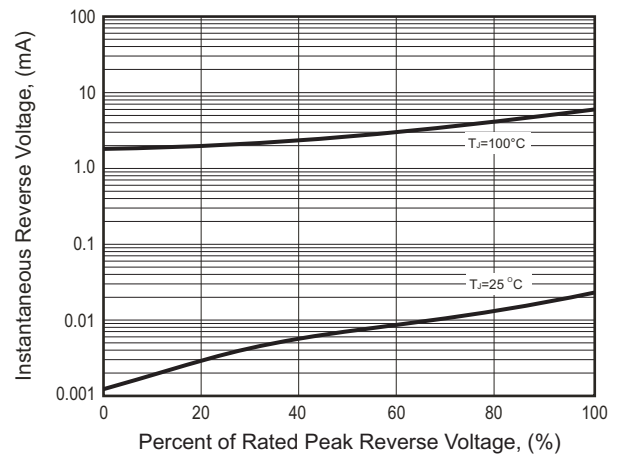
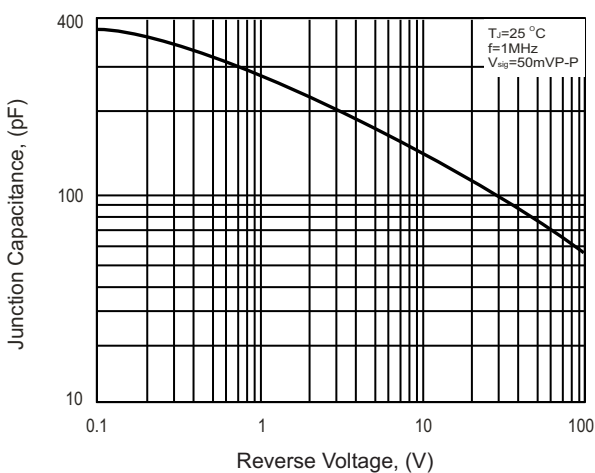
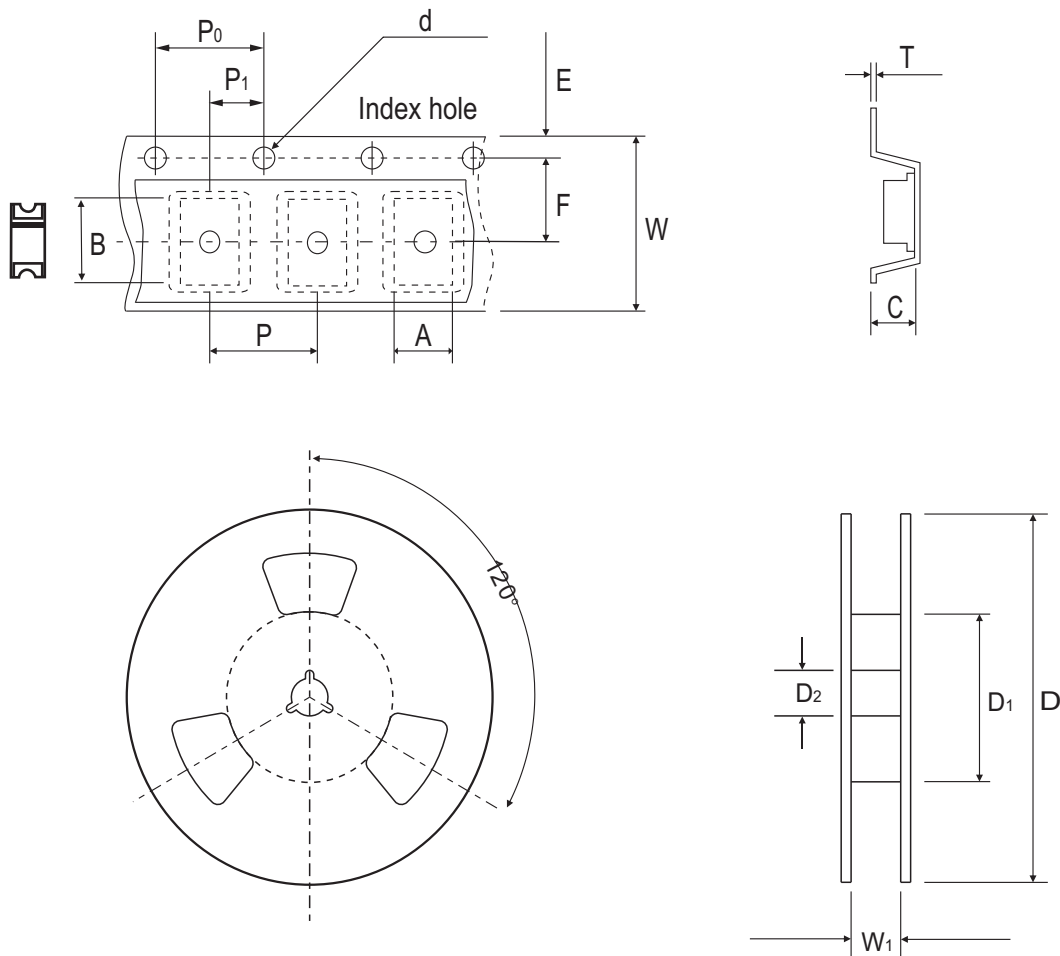


Fig.5- Typical Junction Capacitance



Reel Taping Specification



| 3220 (DO-214AB) | SYMBOL | A | B | C | d | D | D ₁ | D ₂ |
|--------------------|--------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|
| | (mm) | 5.56 ± 0.10 | 8.18 ± 0.10 | 2.16 ± 0.10 | 1.55 ± 0.05 | 330 ± 2.00 | 50.0 MIN. | 13.0 ± 0.50 |
| | (inch) | 0.219 ± 0.004 | 0.322 ± 0.004 | 0.085 ± 0.004 | 0.061 ± 0.002 | 12.992 ± 0.079 | 1.969 MIN. | 0.512 ± 0.020 |

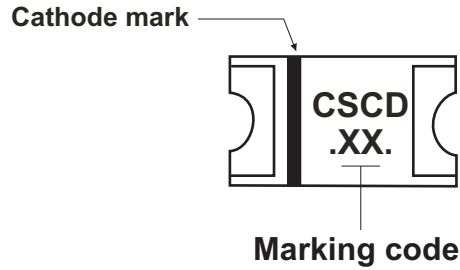
| 3220 (DO-214AB) | SYMBOL | E | F | P | P ₀ | P ₁ | W | W ₁ |
|--------------------|--------|---------------|---------------|---------------|----------------|----------------|---------------|----------------|
| | (mm) | 1.75 ± 0.10 | 7.50 ± 0.10 | 8.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.10 | 16.00 ± 0.30 | 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. |

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REV:A

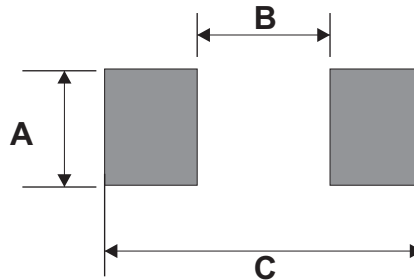
Marking Code

| Part Number | Marking Code |
|---------------|--------------|
| ACDBCT320-HF | 2 |
| ACDBCT340-HF | 4 |
| ACDBCT360-HF | 6 |
| ACDBCT3100-HF | 10 |



Suggested PAD Layout

| SIZE | 3220/DO-214AB | |
|----------|---------------|------------|
| | (mm) | (inch) |
| A | 3.90MIN. | 0.154MIN. |
| B | 4.10MAX. | 0.161MAX. |
| C | 11.90REF. | 0.469 REF. |



Standard Packaging

| Case Type | REEL PACK | |
|----------------------|--------------|------------------|
| | REEL (pcs) | Reel Size (inch) |
| 3220/DO-214AB | 3,000 | 13 |