

## ACGRCT302-HF

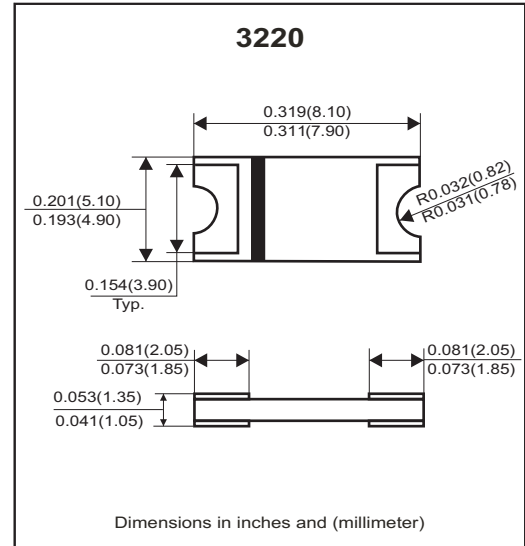
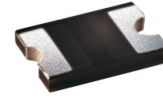
Glass Passivated Type

Reverse Voltage: 400Volts

Forward Current: 3.0 Amp

RoHS Device

Halogen Free



### Features

- Glass passivated cavity-free junction.
- Lead less chip form, no lead damage.
- Low profile package.
- Plastic package has UL 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: Cathode Band, Laser marking.
- Weight: 0.144 grams (approx).

### Circuit Diagram



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

| Parameter  | Symbol      | Value       | Unit |
|--|-------------|-------------|------|
| Repetitive peak reverse voltage  | $V_{RRM}$   | 400         | V    |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | $I_{FSM}$   | 100         | A    |
| Average forward current  | $I_{F(AV)}$ | 3.0         | A    |
| Operating junction temperature   | $T_J$       | -65 to +175 | °C   |
| Storage temperature  | $T_{STG}$   | -65 to +175 | °C   |

### Electrical Characteristics (at TA=25°C unless otherwise noted)

| Parameter                       | Conditions                                     | Symbol    | MIN. | TYP. | MAX. | Unit |
|---------------------------------|--|-----------|------|------|------|------|
| Forward voltage                 | $I_F = 3.0A$                                   | $V_F$     | -    | 0.96 | 1    | V    |
| Repetitive peak reverse current | $V_R = \text{Max. } V_{RRM}, T_A = 25^\circ C$ | $I_{RRM}$ | -    | 0.10 | 5    | uA   |
| Junction capacitance            | $V_R = 4V, f = 1.0MHz$                         | $C_J$     | -    | 25   | -    | pF   |

## RATING AND CHARACTERISTIC CURVES (ACGRCT302-HF )

FIG.1 - Forward Current Derating Curve

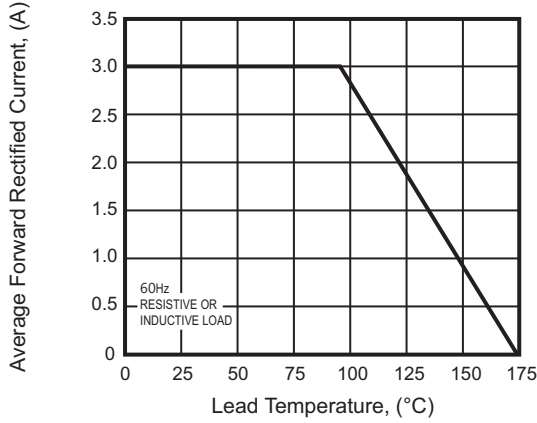


FIG.2 - Mximum Non-Repetitive Peak Forward Surge Current

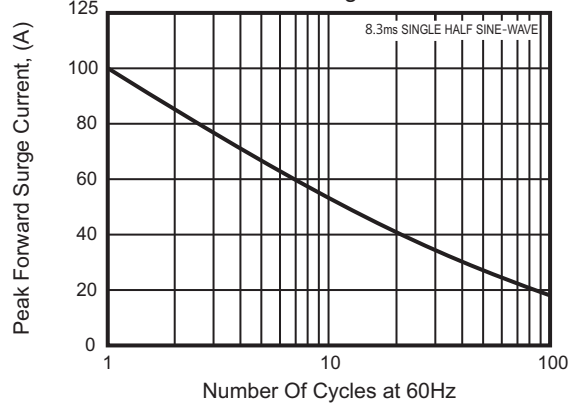


FIG.3 - Typical Instantaneous Forward Characteristics

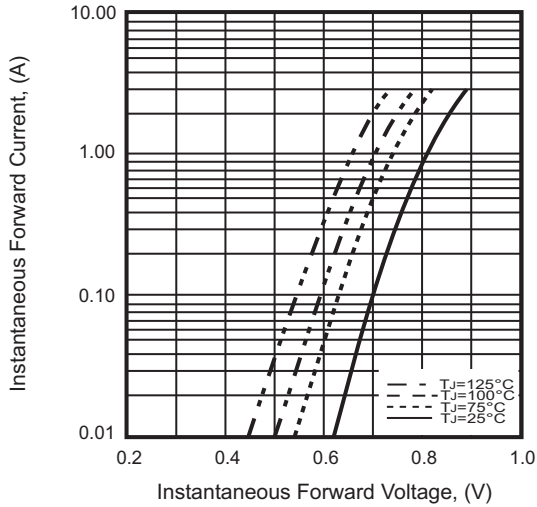


FIG.4 - Typical Reverse Characteristics

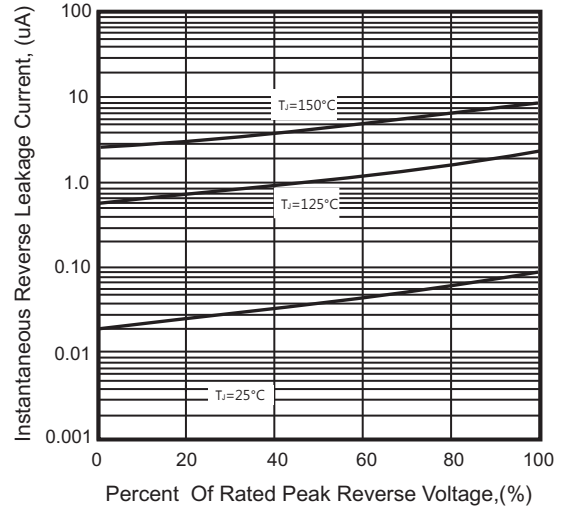
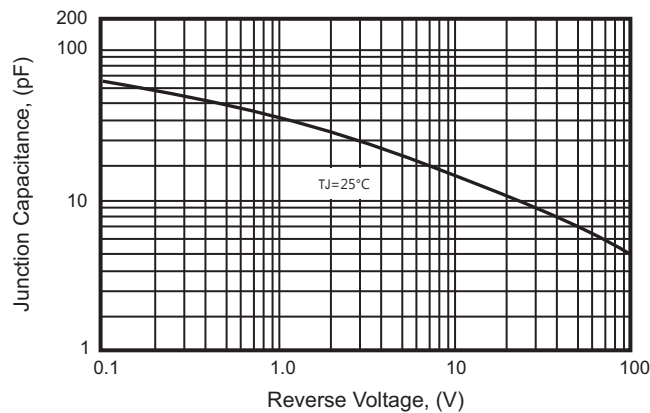
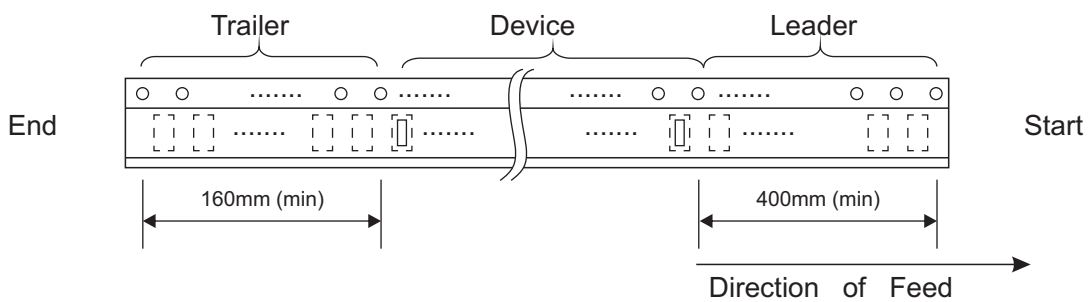
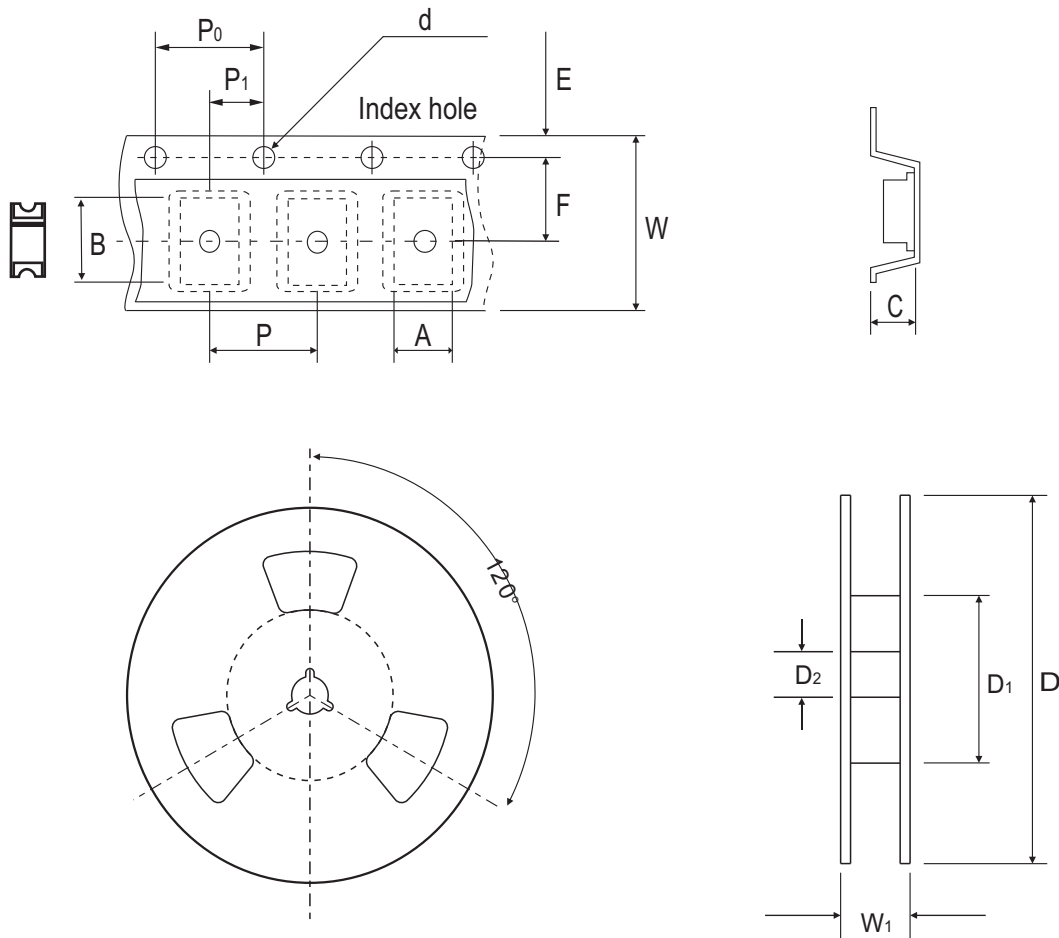


FIG.5 - Typical Junction Capacitance



## Reel Taping Specification



|      |        |               |               |               |               |                |                |                |
|------|--------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|
| 3220 | SYMBOL | A             | B             | C             | d             | D              | D <sub>1</sub> | D <sub>2</sub> |
|      | (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 | 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  | 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 | 0.893 MAX.     |

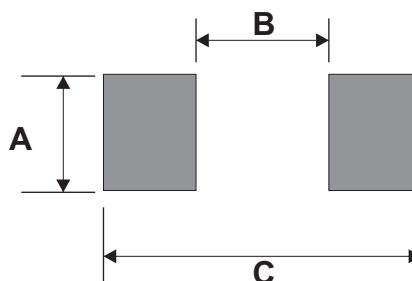
## Marking Code

| Part Number  | Marking Code |
|--------------|--------------|
| ACGRCT302-HF | 30G          |



## Suggested PAD Layout

| SIZE     | 3220      |            |
|----------|-----------|------------|
|          | (mm)      | (inch)     |
| <b>A</b> | 3.90MIN.  | 0.154MIN.  |
| <b>B</b> | 4.10MAX.  | 0.161MAX.  |
| <b>C</b> | 11.90REF. | 0.469 REF. |



## Standard Packaging

| Case Type   | REEL PACK    |                  |
|-------------|--------------|------------------|
|             | REEL ( pcs ) | Reel Size (inch) |
| <b>3220</b> | 3,000        | 13               |