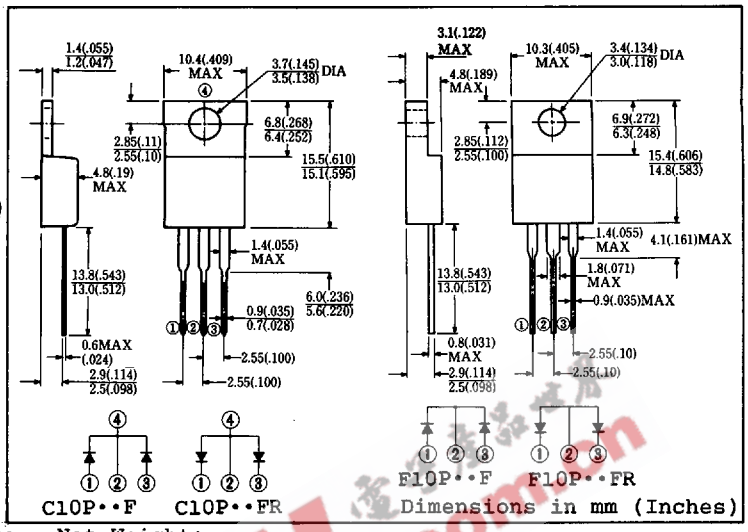
# FAST RECOVERY DIODE 11A/300～400V/trr : 45 nsec C10P30F C10P40F F10P30F F10P40F C10P30FR C10P40FR F10P30FR F10P40FR

## FEATURES

- Similar to TO-220AB Case
- Fully Mold Isolation (F-Type)
- Dual Diodes - Cathode Common and Anode Common (Type - R)
- Ultra - Fast Recovery
- Low Forward Voltage Drop
- High Surge Capability
- 100 Volts thru 600 Volts Types Available




Dimensions in mm (Inches)

Approx. Net Weight: 1.9 Grams 1.75 Grams

## MAXIMUM RATINGS

| Voltage Rating | TYPE / Symbol | ◆C10P30F ◆F10P30F ◆C10P30FR ◆F10P30FR | C10P40F F10P40F C10P40FR F10P40FR | Unit |
|---|---|---|---|---|
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | 300 | 400 | V |
| Non-Repetitive Peak Reverse Voltage | $V_{RSM}$ | 330 | 440 | V |

| Electrical Rating | Symbol | Condition | Rating | Unit |
|---|---|---|---|---|
| Average Rectified Output Current | $I_o$ | Full rectangular wave conduction $T_C$ = 105°C | 11 | A |
| | | Full sinusoidal wave conduction $T_C$ = 112°C | 10 | |
| RMS Forward Current | $I_{F(RMS)}$ | | 11 | A |
| Peak One-cycle Forward Surge Current | $I_{FSM}$ | 50Hz full sine wave, non-repetitive | 80 | A |
| Operating Junction Temperature Range | $T_{jw}$ | | -40 to 150 | °C |
| Storage Temperature Range | $T_{stg}$ | | -40 to 150 | °C |
| Mounting Torque | $F_{tor}$ | Recommended torque | 0.5 (5.1) | N•m (kgf•cm) |

## ELECTRICAL & THERMAL CHARACTERISTICS

| Characteristics | Symbol | Test Condition | Max. | Unit |
|---|---|---|---|---|
| Peak Forward Voltage | $V_{FM}$ | $I_{FM}$ = 5A $T_j$ = 25°C per diode leg | 1.25 | V |
| Peak Reverse Current | $I_{RM}$ | $V_{RM}$ = $V_{RRM}$ $T_j$ = 25°C per diode leg | 30 | μA |
| Reverse Recovery Time | $t_{rr}$ | $I_{FM}$ = 5A -di/dt = 50A/μs $T_j$ = 25°C | 45 | ns |
| Thermal Resistance | $R_{th(j-c)}$ | Junction to Case | 3 | °C/W |
| | $R_{th(c-f)}$ | Case to Fin for F10P type | 1.5 | |

◆For spare parts only

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FIG.1-FORWARD VOLTAGE VS. FORWARD CURRENT

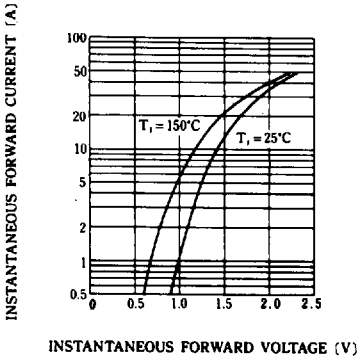



FIG.2-AVERAGE FORWARD POWER DISSIPATION

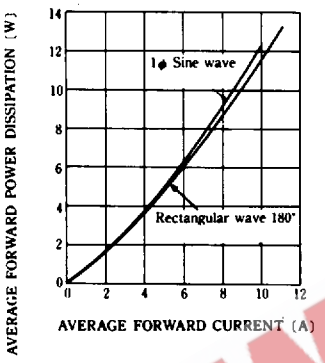



FIG.3-AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

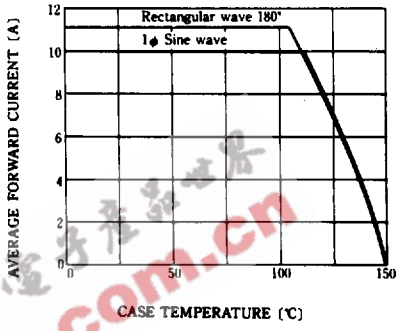
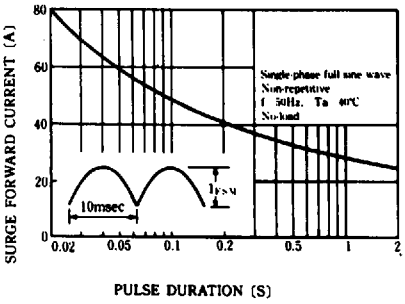



FIG.4-SURGE CURRENT RATINGS

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