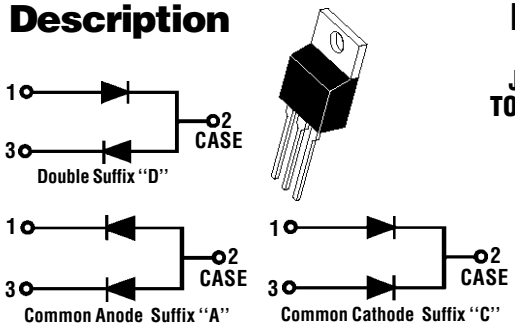
Data Sheet

# 10 Amp SUPER FAST RECOVERY POWER RECTIFIERS

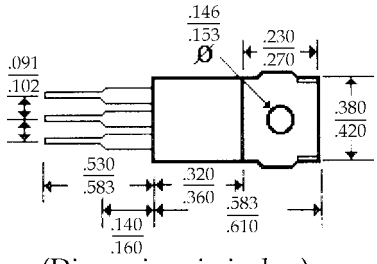
UF10C05.....10C60

## Description




## Mechanical Dimensions

**JEDEC TO-220AB**




(Dimensions in inches)

## Features

- **LOW FORWARD VOLTAGE**
- **HIGH SURGE CAPABILITY**
- **SUPER FAST RECOVERY TIME**
- **MEETS UL SPECIFICATION 94V-0**

| | UF10C05....UF10C60 | Units |
|---|---|---|
| **Maximum Ratings** | | |
| Peak Repetitive Reverse Voltage...$V_{RRM}$ | **50 100 200 300 400 500 600** | Volts |
| Working Peak Reverse Voltage...$V_{RWM}$ | **05 100 200 300 400 500 600** | Volts |
| DC Blocking Voltage...$V_{DC}$ | **05 100 200 300 400 500 600** | Volts |
| RMS Reverse Voltage...$V_{R(rms)}$ | **35 70 140 210 280 350 420** | Volts |
| Average Forward Rectified Current...$I_{F(av)}$ (Per Leg)<br>$T_C$ = 100°C @ Rated $V_{DC}$ ( Total) | 5<br>10 | Amps<br>Amps |
| Repetitive Peak Forward Surge Current...$I_{FM}$<br>@ Rated $V_{DC}$, Square Wave, 20 kHz, $T_C$ = 100°C | 10 | Amps |
| Non-Repetitive Peak Forward Surge Current...$I_{FSM}$<br>@ Rated Load Cond., ½ Wave, Single Phase, 60Hz | **100** | Amps |
| Operating & Storage Temperature Range...$T_J$, $T_{STRG}$ | -50 to 150 | °C |
| **Electrical Characteristics, Per Diode Leg** | | |
| Maximum Forward Voltage...$V_F$<br>@ $I_F$ = 5 Amps, PW = 300µs $T_C$ = 25°C | **---- 0.95 ----  ---1.3----  ---1.5 ----** | Volts |
| Maximum DC Reverse Current...$I_R$<br>@ Rated DC Blocking Voltage $T_C$ =125°C<br>$T_C$ = 25°C | 500<br>10 | µAmps<br>µAmps |
| Maximum Reverse Recovery Time...$t_{RR}$<br>$I_F$ = 0.5 Amp, $I_R$= 1A, $I_{rr}$ = 0.25A | **------35-----  --------- 50 ----------** | ns |

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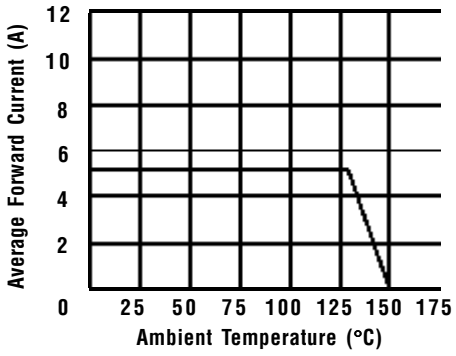
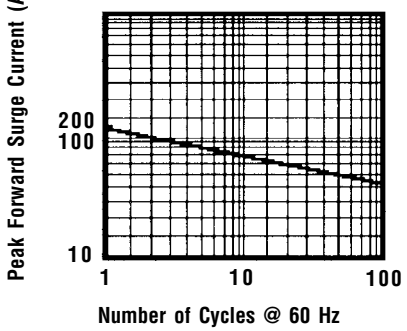
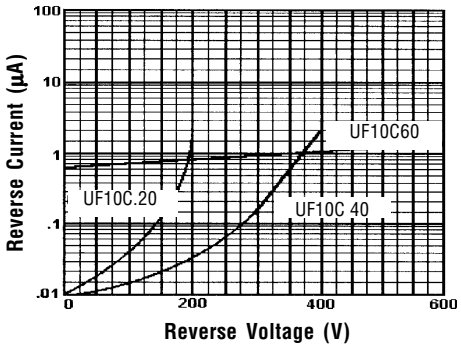
**Forward Current Derating Curve**



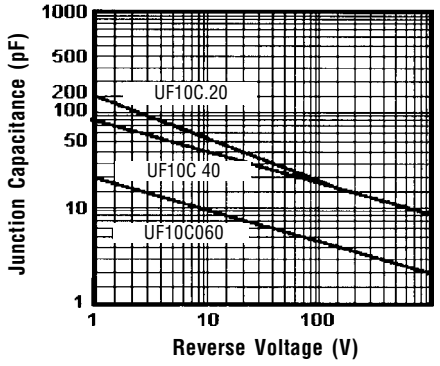

**Non-Repetitive Peak Forward Surge Current**



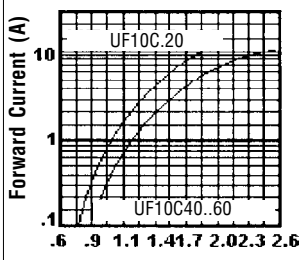

**Typical Reverse Characteristics**

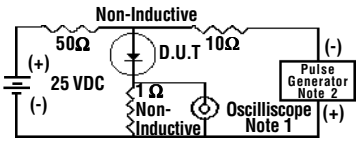



**Typical Junction Capacitance**




**Typical Instantaneous Forward Characteristics**

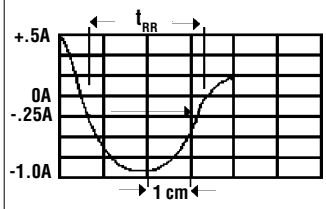



**Notes:**

1. Rise Time = 7 ns Max. Impedance = 1 megohm, 22 pF
2. Rise Time = 10 ns Max. Source Impedance = 50 Ohms

**Reverse Recovery Characteristics**




Time Base Set @ 50/100ns/cm

Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 Hz Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.