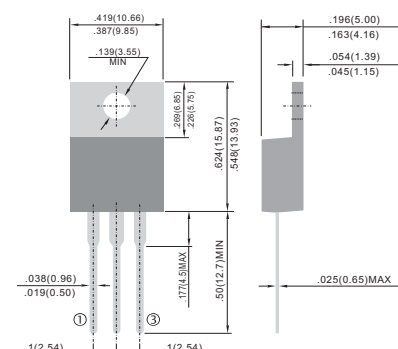


Pb Free Plating Product

## C10P20FS/C10P40FS/C10P60FS



## 10.0 Ampere Heatsink Dual Series Connection Fast Recovery Rectifiers

| Features                                                                                                                                                                                                                                      | TO-220AB(TO-220-3L) Unit:inch(mm)                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| ※ Fast switching for high efficiency<br>※ Low forward voltage drop<br>※ High current capability<br>※ Low reverse leakage current<br>※ High surge current capability                                                                           |  |
| Application                                                                                                                                                                                                                                   |                                                                                    |
| ※ Automotive Inverters and Solar Inverters<br>※ Car Audio Amplifiers and Sound Device Systems<br>※ Plating Power Supply, Motor Control, UPS and SMPS etc.                                                                                     |                                                                                    |
| Mechanical Data                                                                                                                                                                                                                               |                                                                                    |
| ※ Case: Open Heatsink Package TO-220AB<br>※ Epoxy: UL 94V-0 rate flame retardant<br>※ Terminals: Solderable per MIL-STD-202 method 208<br>※ Polarity: As marked on diode body<br>※ Mounting position: Any<br>※ Weight: 2.2 gram approximately |  |

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| PARAMETER                                                                                         | SYMBOL  | C10P20FS    | C10P40FS | C10P60FS | UNIT     |
|---------------------------------------------------------------------------------------------------|---------|-------------|----------|----------|----------|
| Maximum Recurrent Peak Reverse Voltage                                                            | VRRM    | 200         | 400      | 600      | V        |
| Maximum RMS Voltage                                                                               | VRMS    | 140         | 280      | 420      | V        |
| Maximum DC Blocking Voltage                                                                       | VDC     | 200         | 400      | 600      | V        |
| Maximum Average Forward Rectified Current Tc=100 °C<br>(Total Device 2x5.0A=10.0A)                | IF(AV)  | 10.0        |          |          | A        |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | IFSM    | 125         |          |          | A        |
| Maximum Instantaneous Forward Voltage @5.0A<br>(Per Diode/Per Leg)                                | VF      | 0.98        | 1.3      | 1.7      | V        |
| Maximum DC Reverse Current @TJ=25°C<br>At Rated DC Blocking Voltage @TJ=125°C                     | IR      | 5.0<br>100  |          |          | μA<br>μA |
| Maximum Reverse Recovery Time (Note1)                                                             | Trr     | 35          |          |          | nS       |
| Typical Junction Capacitance (Note 2)                                                             | CJ      | 65          |          |          | pF       |
| Typical Thermal Resistance (Note 3)                                                               | RθJC    | 1.5         |          |          | °C/W     |
| Operating Junction and Storage Temperature Range                                                  | TJ,TSTG | -55 to +150 |          |          | °C       |

Note:(1)Reverse recovery test conditions IF = 0.5A, IR = 1.0A, Irr = 0.25A.

Note:(2)Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

Note:(3)Thermal Resistance junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

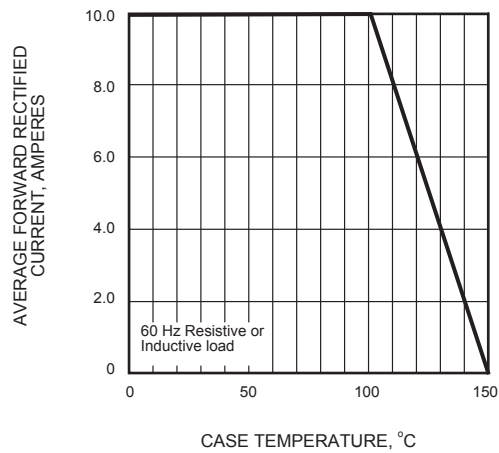


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

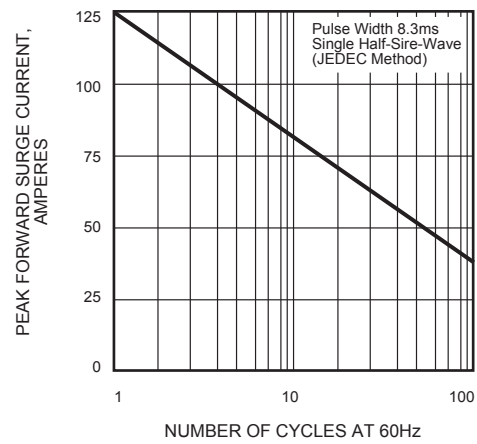


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

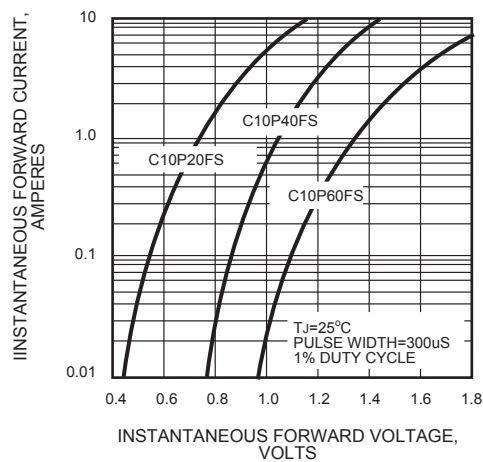


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

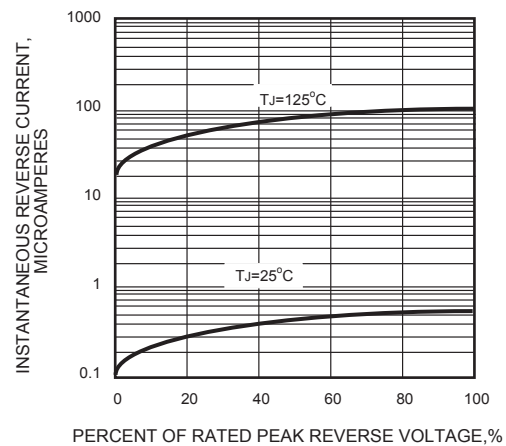


FIG.5 - TYPICAL JUNCTION CAPACITANCE

