

Pb Free Plating Product

U20C20C/U20C40C/U20C60C



20 Ampere Heatsink Common Cathode Fast Recovery Half Bridge Rectifiers

Features

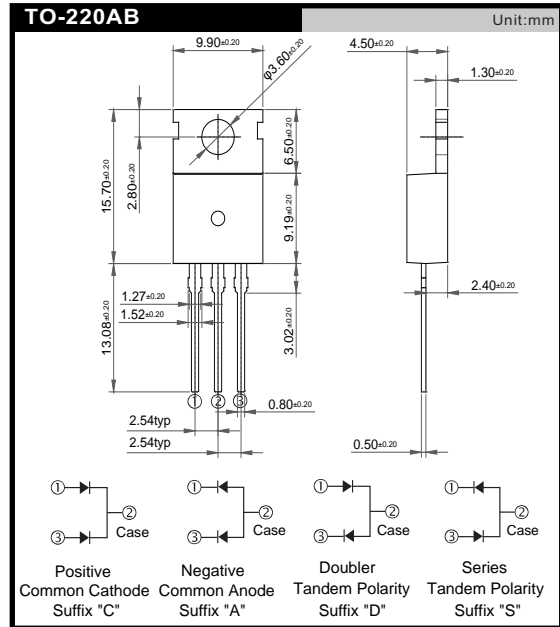
- ★ Latest GPP technology with super fast recovery time
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

Application

- ★ Automotive Inverters and Solar Inverters
- ★ Plating Power Supply, SMPS, Motor Control and UPS
- ★ Car Audio Amplifiers and Sound Device Systems

Mechanical Data

- ★ Case: Heatsink TO-220AB/TO-220CE
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202 method 208
- ★ Polarity: As marked on diode body
- ★ Mounting position: Any
- ★ 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%.

| | SYMBOL | U20C20C | U20C40C | U20C60C | 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=125°C | IF(AV) | 20.0 | | | A |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | IFSM | 200 | 175 | | A |
| Maximum Instantaneous Forward Voltage @ 10.0 A | VF | 0.98 | 1.3 | 1.7 | V |
| Maximum DC Reverse Current @Tj=25°C At Rated DC Blocking Voltage @Tj=125°C | IR | | 5.0 100 | | uA uA |
| Maximum Reverse Recovery Time (Note 1) | Trr | | 35 | | nS |
| Typical junction Capacitance (Note 2) | CJ | 120 | 70 | | pF |
| Operating Junction and Storage Temperature Range | TJ, TSTG | -55 to +150 | | | °C |

NOTES : (1) Reverse recovery test conditions IF = 0.5A, IR = 1.0A, Irr = 0.25A.
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

FIG.1 - FORWARD CURRENT DERATING CURVE

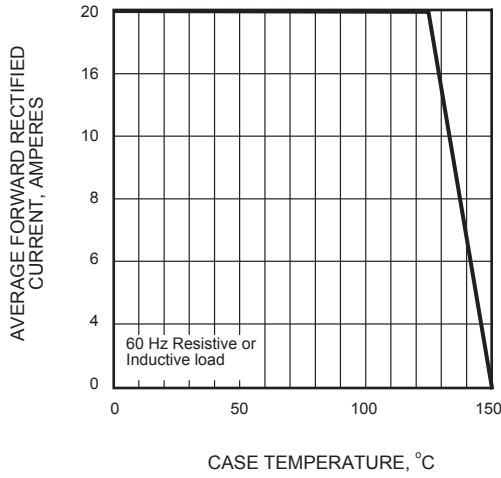


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

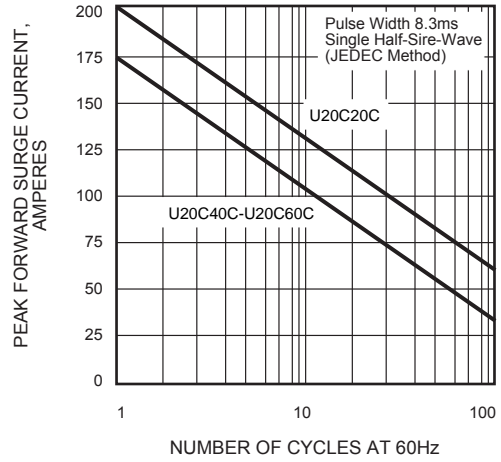


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

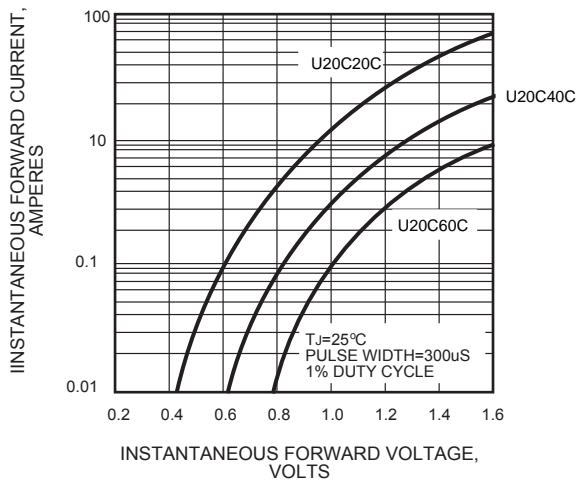


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

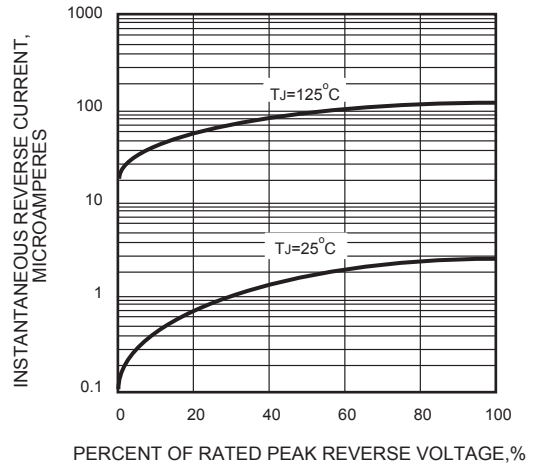


FIG.5 - TYPICAL JUNCTION CAPACITANCE

