

Pb Free Plating Product

U20D20C/U20D40C/U20D60C



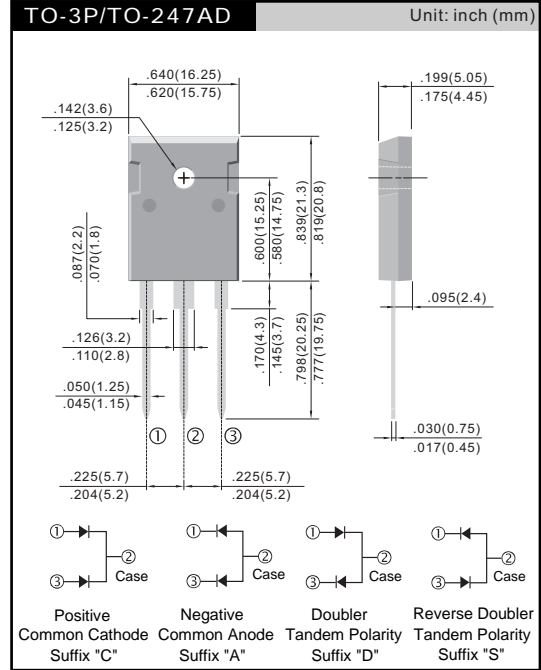
20 Ampere Common Cathode Ultra Fast Recovery Rectifier Diodes

Features

- ✧ Dual rectifier construction, positive center-tap
- ✧ Plastic package has Underwriters Laboratory Flammability Classification 94V0
- ✧ Glass passivated chip junctions
- ✧ Superfast recovery time, high voltage
- ✧ Low forward voltage, high current capability
- ✧ Low thermal resistance
- ✧ Low power loss, high efficiency
- ✧ High temperature soldering guaranteed: 260°C, 0.16"(4.06mm)from case for 10 seconds

Mechanical Data

- ✧ Cases: TO-3P/TO-247AD molded plastic
- ✧ Terminals: Pure tin plated, lead free solderable per MIL-STD-750. Method 2026
- ✧ Polarity: As marked
- ✧ Mounting position: Any
- ✧ Mounting torque: 10in-lbs. Max.
- ✧ Weight: 6.5 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 | U20D20C | U20D40C | U20D60C | 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 | | uA |
| | | | 100 | | 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

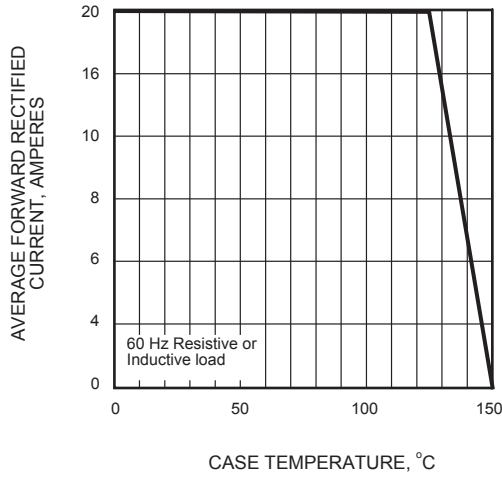


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

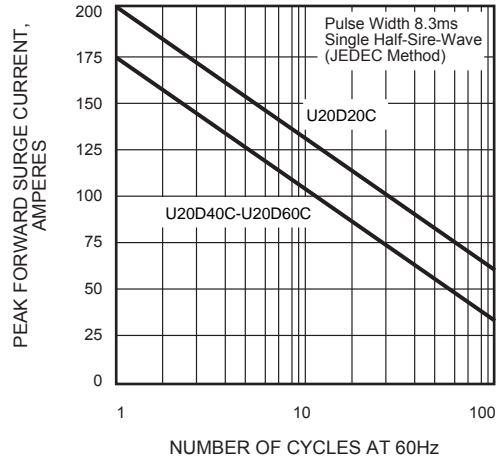


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

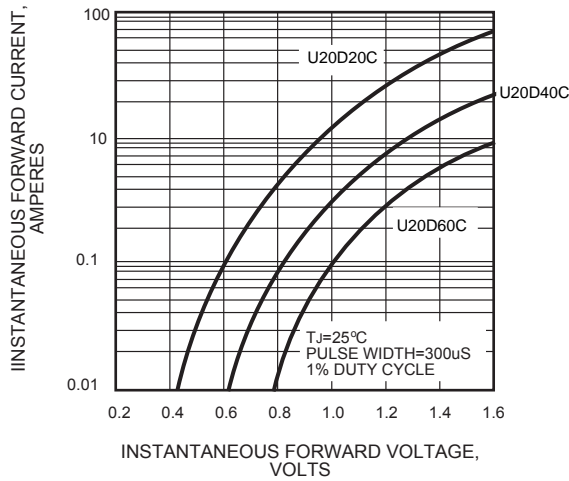


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

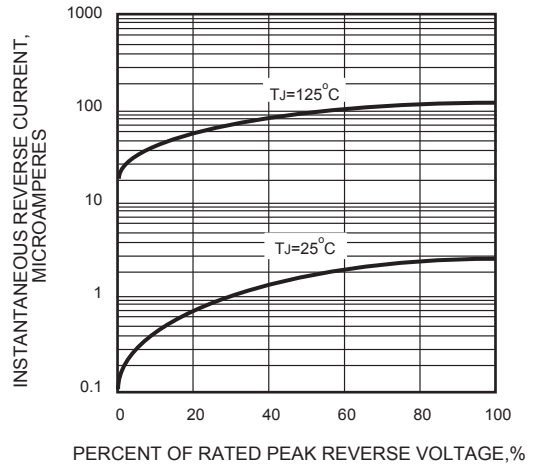


FIG.5 - TYPICAL JUNCTION CAPACITANCE

