

Pb Free Plating Product

SDURF1520CTR/SDURF1530CTR/SDURF1540CTR/SDURF1560CTR



15Ampere Insulated Dual Common Anode Ultra Fast Recovery Rectifiers

Features

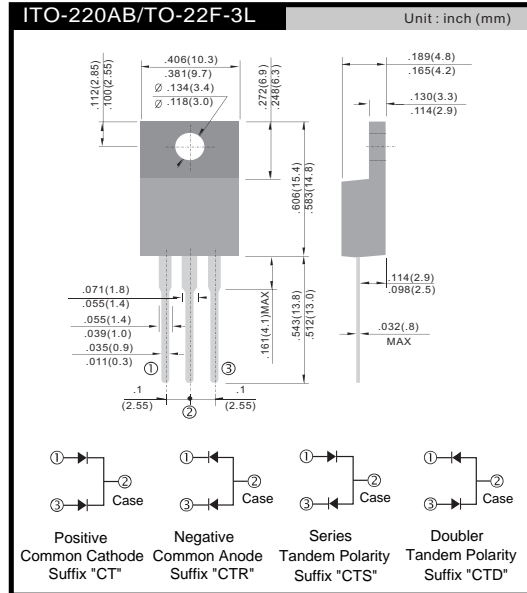
- * Fast switching for high efficiency
- * Low forward voltage drop
- * High current capability
- * Low reverse leakage current
- * High surge current capability

Application

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

Mechanical Data

- * Case: ITO-220AB full plastic isolated package
- * 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: 2.0 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 | SDURF1520CTR | SDURF1530CTR SDURF1540CTR | SDURF1560CTR | UNIT |
|--|-----------------------------------|--------------|------------------------------|--------------|----------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 200 | 400 | 600 | V |
| Maximum RMS Voltage | V _{RMS} | 140 | 280 | 420 | V |
| Maximum DC Blocking Voltage | V _{DC} | 200 | 400 | 600 | V |
| Maximum Average Forward Rectified Current T _c =100°C (Total Device 2x7.5A=15A) | I _{F(AV)} | 15.0 | | | A |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 175 | 150 | | A |
| Maximum Instantaneous Forward Voltage @ 8.0 A (Per Diode/Per Leg) | V _F | 0.98 | 1.3 | 1.7 | V |
| Maximum DC Reverse Current @T _J =25°C At Rated DC Blocking Voltage @T _J =125°C | I _R | | 5.0 100 | | μA μA |
| Maximum Reverse Recovery Time (Note 1) | T _{rr} | | 35 | | nS |
| Typical junction Capacitance (Note 2) | C _J | | 90 | | pF |
| Typical Thermal Resistance (Note 3) | R _{θJC} | | 3.0 | | °C/W |
| Operating Junction and Storage Temperature Range | T _J , T _{STG} | -55 to + 150 | | | °C |

NOTES : (1) Reverse recovery test conditions I_F = 0.5A, R = 1.0A, I_{rr} = 0.25A.

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

(3) Thermal Resistance junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

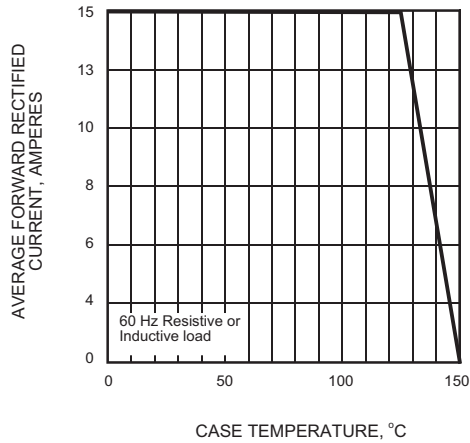


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

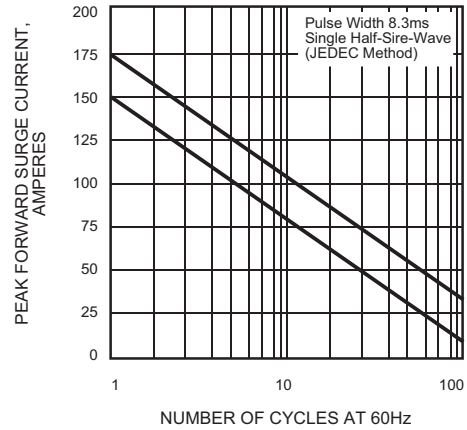


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

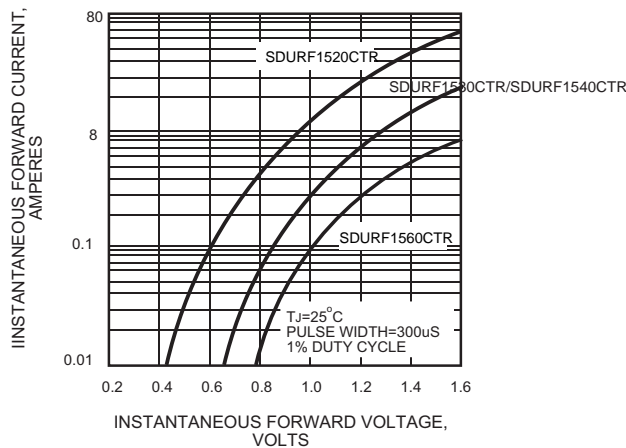


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

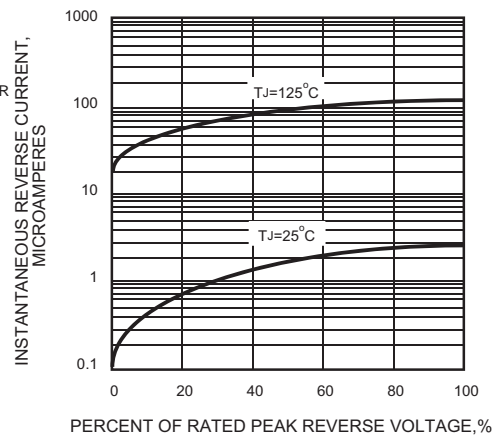


FIG.5 - TYPICAL JUNCTION CAPACITANCE

