

Main Product Characteristics

| | |
|--------------|---------|
| $I_{F(AV)}$ | 2 X 10A |
| V_{RRM} | 60V |
| T_J | 175°C |
| $V_{F(Typ)}$ | 0.55V |

Features

- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

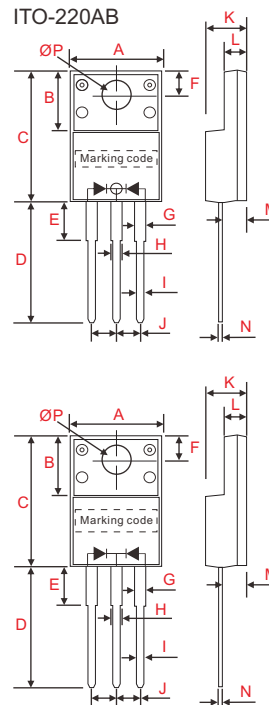
Mechanical Data

- Epoxy : UL94-V0 rated flame retardant.
- Case : JEDEC ITO-220AB molded plastic body.
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : As marked.
- Weight : Approximated 2.25 gram.

Maximum Ratings

Rating at 25°C ambient temperature unless otherwise specified.

Outline



| symbol | Dimensions in inches(millimeters) | |
|--------|-----------------------------------|--------------|
| | Min | Max |
| A | 0.390(9.9) | 0.408(10.36) |
| B | 0.268(6.8) | 0.283(7.2) |
| C | 0.583(14.8) | 0.598(15.2) |
| D | 0.512(13.0) | 0.543(13.8) |
| E | 0.102(2.6) | 0.150(3.8) |
| F | 0.101(2.55) | 0.112(2.85) |
| G | 0.043(1.1) | 0.053(1.35) |
| H | 0.043(1.1) | 0.053(1.35) |
| I | 0.020(0.5) | 0.028(0.7) |
| J | 0.098(2.49) | 0.102(2.59) |
| K | 0.169(4.3) | 0.185(4.7) |
| L | 0.112(2.85) | 0.128(3.25) |
| M | 0.098(2.5) | 0.114(2.9) |
| N | 0.020(0.5) | 0.028(0.7) |
| ØP | 0.130(3.3) | 0.134(3.5) |

Alternate

| symbol | Dimensions in inches(millimeters) | |
|--------|-----------------------------------|--------------|
| | Min | Max |
| A | 0.383(9.72) | 0.404(10.27) |
| B | 0.248(6.3) | 0.272(6.9) |
| C | 0.571(14.5) | 0.610(15.5) |
| D | 0.516(13.1) | 0.547(13.9) |
| E | - | 0.161(4.1) |
| F | 0.094(2.4) | 0.126(3.2) |
| G | 0.039(1.0) | 0.051(1.3) |
| H | 0.039(1.0) | 0.051(1.3) |
| I | 0.020(0.5) | 0.035(0.9) |
| J | 0.095(2.41) | 0.105(2.67) |
| K | 0.169(4.3) | 0.189(4.8) |
| L | 0.055(1.4) | 0.122(3.1) |
| M | 0.091(2.3) | 0.117(2.96) |
| N | 0.014(0.35) | 0.031(0.8) |
| ØP | 0.122(3.1) | 0.142(3.6) |

Dimensions in inches and (millimeters)

Circuit Diagram



| Parameter | Condition | Symbol | CF20L60CT | UNIT |
|---|--|-----------|------------|------|
| Maximum DC Blocking Voltage | | V_{DC} | 60 | V |
| Forward Rectified Current (total device) | | I_O | 20 | A |
| Forward Surge Current (per diode) | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | 140 | A |
| Peak Repetitive Reverse Surge Current (per diode) | Pulse width 2us, 1000Hz, square wave at T_A 25°C, 10 cycles | I_{RRM} | 2 | A |
| Thermal Resistance (per diode) | Junction to case | R_{BJC} | 8 | °C/W |
| | Junction to ambient | R_{BJA} | 50 | |
| Storage Temperature | | T_{STG} | -55 ~ +175 | °C |
| Operating Junction Temperature | | T_J | -55 ~ +175 | °C |

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

| Parameter | Condition | Symbol | MIN. | TYP. | MAX. | UNIT |
|---------------------------------------|------------------------------------|----------|------|-------|------|------|
| Forward Voltage Drop (per diode) | $I_F = 3A, T_J = 25^\circ C$ | V_F | | 440 | | mV |
| | $I_F = 10A, T_J = 25^\circ C$ | | | 580 | 640 | |
| | $I_F = 10A, T_J = 125^\circ C$ | | | 550 | | |
| Reverse Current (per diode) | $V_R = V_{RWM}, T_J = 25^\circ C$ | I_R | | 0.004 | 0.05 | mA |
| | $V_R = V_{RWM}, T_J = 125^\circ C$ | | | 4 | 20 | |
| Reverse Breakdown Voltage (per diode) | $I_R = 0.1mA, T_J = 25^\circ C$ | V_{BR} | 60 | | | V |

Rating and Characteristic Curves

Fig. 1 - Forward Characteristics

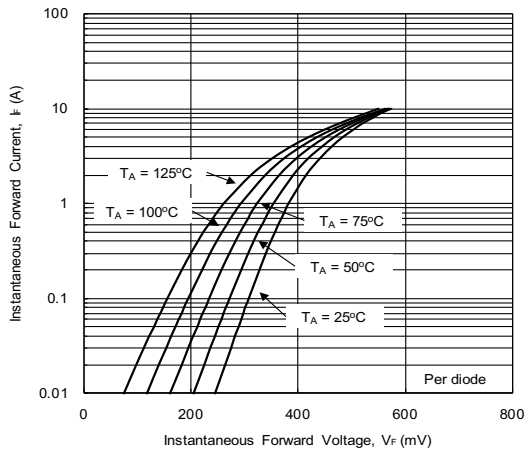


Fig. 2 - Reverse Characteristics

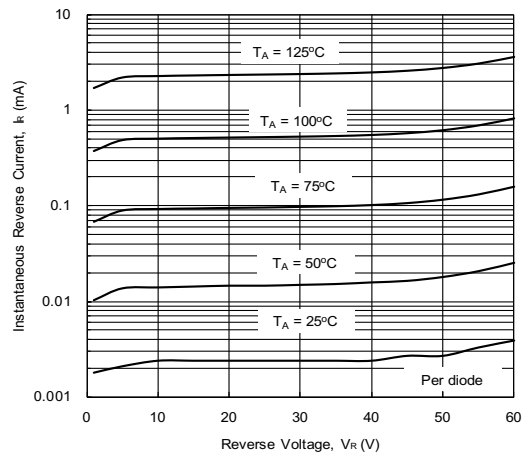


Fig. 3 - Forward Power Dissipation

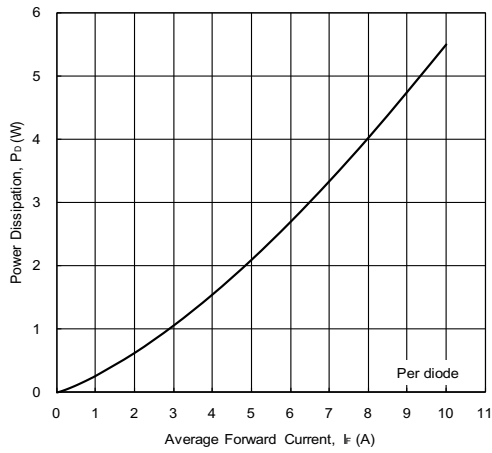


Fig. 4 - Forward Current Derating Curve

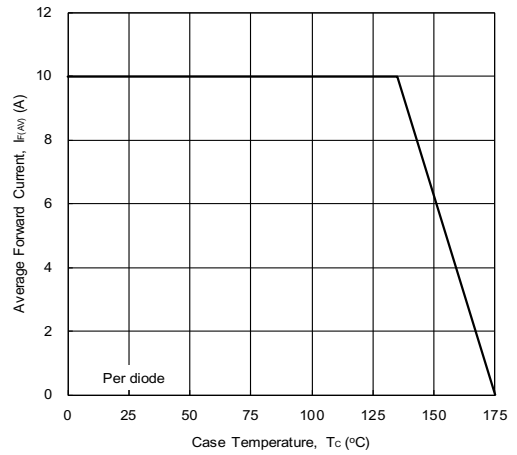
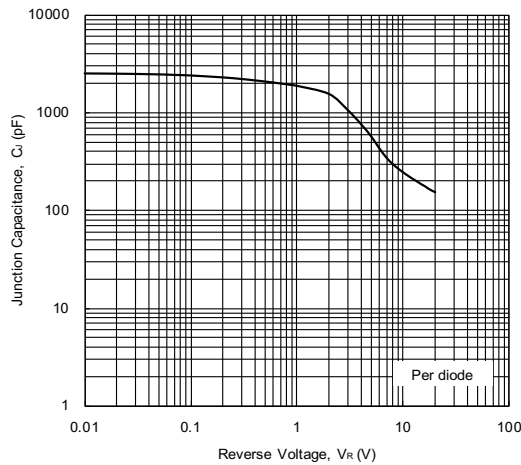
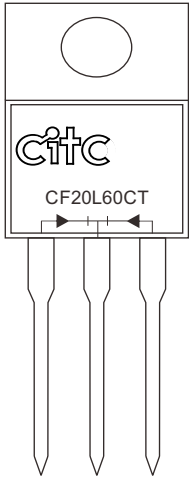



Fig. 5 - Junction Capacitance





■ Marking Information



CF20L60CT : Product type marking code

 : CITC Logo

■ Ordering / Packing Information

| | Part number | Case | Q'TY/Tube (PCS) | Q'TY/Box (PCS) | Q'TY/Carton (PCS) |
|---|-------------|-----------|-----------------|----------------|-------------------|
|  | CF20L60CT | ITO-220AB | 50 | 1000 | 5000 |
|  | CF20L60CTG | | | | |

Notes : 1. For packaging details please reference our website at <http://www.citcorp.com.tw/tchinese/products/index.php>

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