

■ Features

- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex. CF10L45CTG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Mechanical data

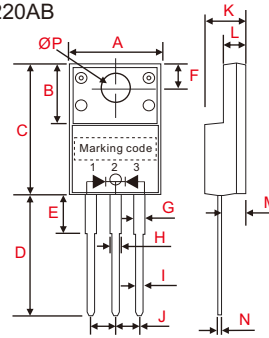
- Epoxy : UL94-V0 rated flame retardant.
- Case : JEDEC ITO-220AB molded plastic body.
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: As marked.
- Mounting Position : Any.
- Weight : Approximated 2.25 gram.

■ Maximum ratings and electrical characteristics

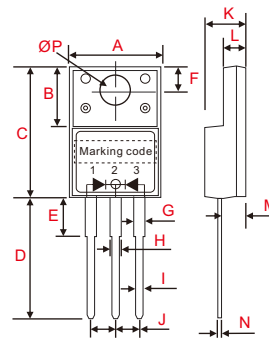
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

■ Outline

ITO-220AB

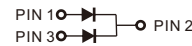


| symbol | Dimensions in inches(millimeters) | |
|--------|-----------------------------------|--------------|
| | Min | Max |
| A | 0.390(9.9) | 0.408(10.36) |
| B | 0.268(6.8) | 0.283(7.2) |
| C | 0.583(14.8) | 0.598(15.2) |
| D | 0.512(13.0) | 0.543(13.8) |
| E | 0.102(2.6) | 0.150(3.8) |
| F | 0.101(2.55) | 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 | 0.390(9.9) | 0.398(10.1) |
| B | 0.264(6.7) | 0.272(6.9) |
| C | 0.587(14.9) | 0.595(15.1) |
| D | 0.492(12.5) | 0.532(13.5) |
| E | 0.142(3.4) | 0.150(3.8) |
| F | 0.098(2.5) | 0.118(3.0) |
| G | 0.043(1.1) | 0.055(1.4) |
| H | 0.043(1.1) | 0.055(1.4) |
| I | 0.020(0.5) | 0.030(0.75) |
| J | 0.095(2.42) | 0.105(2.66) |
| K | 0.173(4.4) | 0.181(4.6) |
| L | 0.102(2.6) | 0.110(2.8) |
| M | 0.097(2.45) | 0.100(2.55) |
| N | 0.020(0.5) | 0.028(0.7) |
| ØP | 0.134(3.4) | 0.142(3.6) |



| Parameter | Conditions | Symbol | CF10L45CT | UNIT |
|---|--|-----------------|------------|---------------------------|
| Marking code | | | CF10L45CT | |
| Peak repetitive reverse voltage | | V_{RRM} | | |
| Working peak reverse voltage | | V_{RWM} | 45 | V |
| DC blocking voltage | | V_{RM} | | |
| Forward rectified current (total device) | $T_c = 110^\circ\text{C}$ | I_O | 10 | A |
| Forward surge current (per diode) | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | 150 | A |
| Peak repetitive reverse surge current (per diode) | 2us - 1kHz | I_{RRM} | 2 | A |
| Thermal resistance(1) (per diode) | Junction to case | $R_{\theta JC}$ | 4 | $^\circ\text{C}/\text{W}$ |
| Operating and Storage temperature | | T_J, T_{STG} | -65 ~ +150 | $^\circ\text{C}$ |

| Parameter | Conditions | Symbol | MIN. | TYP. | MAX. | UNIT |
|----------------------------------|--|--------|------|------|------|------|
| Forward voltage drop (per diode) | $I_F = 5\text{A}, T_J = 25^\circ\text{C}$ | V_F | | | 470 | mV |
| | $I_F = 5\text{A}, T_J = 125^\circ\text{C}$ | | | | 420 | |
| Reverse current (per diode) | $V_R = V_{RRM}, T_J = 25^\circ\text{C}$ | I_R | | | 0.5 | mA |
| | $V_R = V_{RRM}, T_J = 125^\circ\text{C}$ | | | | 100 | |

Note : 1. Thermal resistance from junction to case per leg, with heatsink size(1.35" x 0.95" x 0.18") Al-plate.

Rating and characteristic curves

Fig. 1 - Forward Current Derating Curve (per diode)

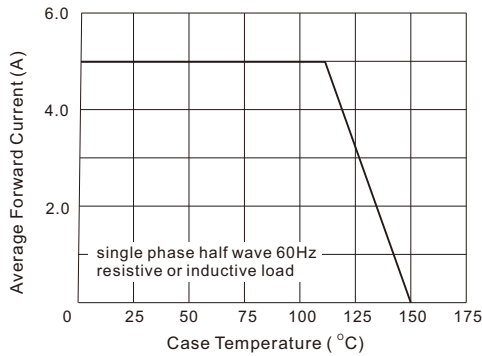


Fig. 2 - Instantaneous Forward Characteristics (per diode)

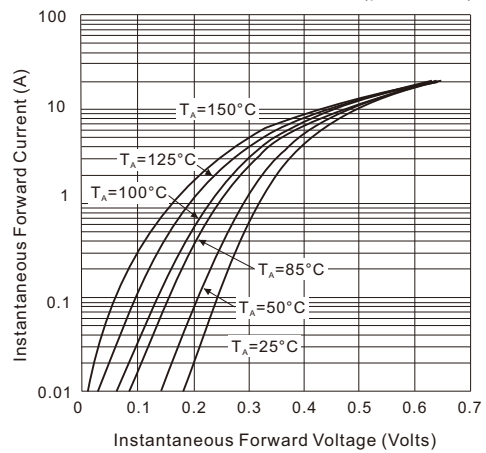
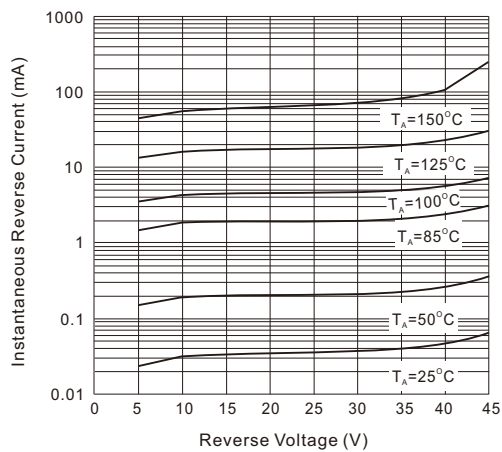


Fig. 3 - Reverse Characteristics (per diode)



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