

Maximum Ratings (Per Leg) (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitance load, derate current by 20%.

| Characteristic | Symbol | Value | Unit |
|---|------------------|----------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 150 | V |
| Working Peak Reverse Voltage | V _{RWM} | | |
| DC Blocking Voltage | V _{RM} | | |
| Average Rectified Output Current (Per Leg) (Total) | I _O | 10 20 | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load | I _{FSM} | 170 | A |

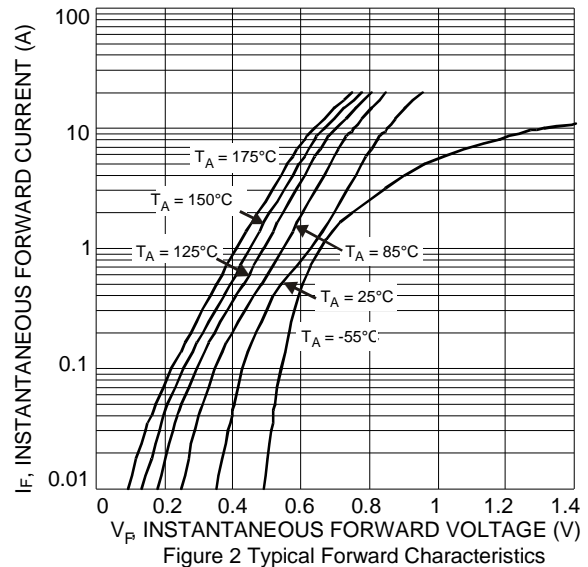
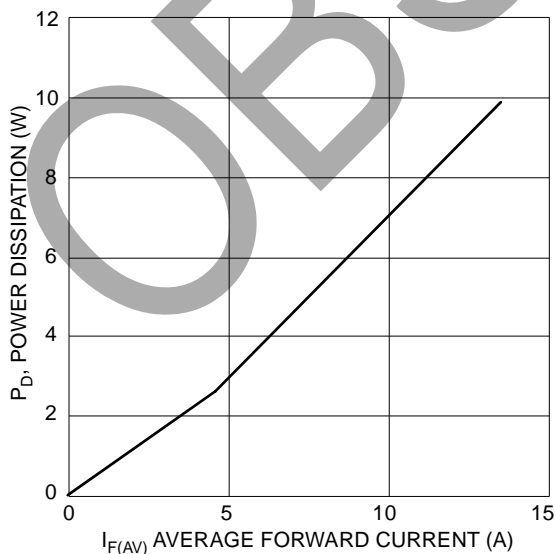
Thermal Characteristics (Per Leg)

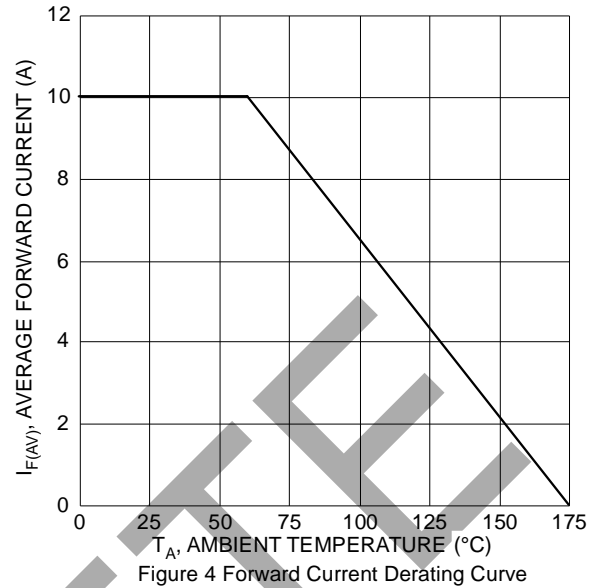
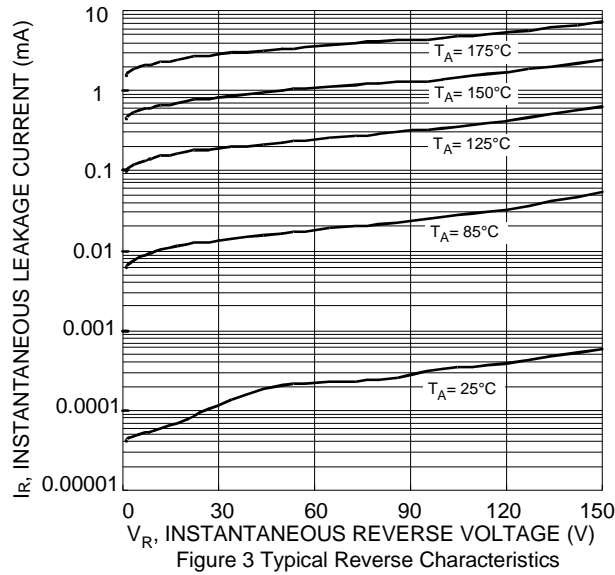
| Characteristic | Symbol | Value | Unit |
|---|-----------------------------------|-------------|------|
| Typical Thermal Resistance, Junction to Case (Note 5) Package = TO-220AB Package = ITO-220AB | R _{θJC} | 3 5 | °C/W |
| Typical Thermal Resistance, Junction to Ambient (Note 5) Package = TO-220AB Package = ITO-220AB | R _{θJA} | 15 25 | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to +175 | °C |

Electrical Characteristics (Per Leg) (@T_A = +25°C, unless otherwise specified.)

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Condition |
|--------------------------|----------------|-----|------|--------------|------|---|
| Forward Voltage Drop | V _F | — | 0.86 | 0.90 0.75 | V | I _F = 10A, T _J = +25°C I _F = 10A, T _J = +125°C |
| Leakage Current (Note 6) | I _R | — | — | 0.05 10 | mA | V _R = 150V, T _J = +25°C V _R = 150V, T _J = +125°C |

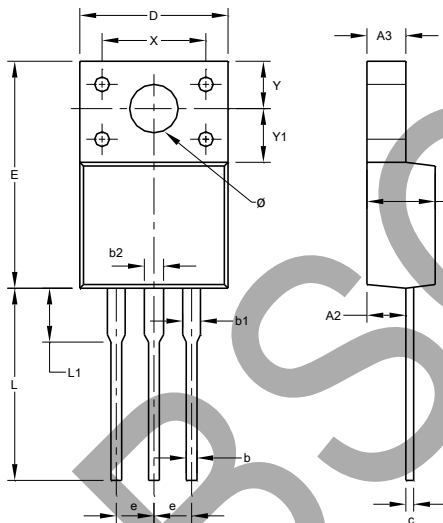
Notes: 5. Device mounted on heat sink (45mm x 20mm x 12mm), with minimum recommended pad layout per <http://www.diodes.com>.
6. Short duration pulse test used to minimize self-heating effect.



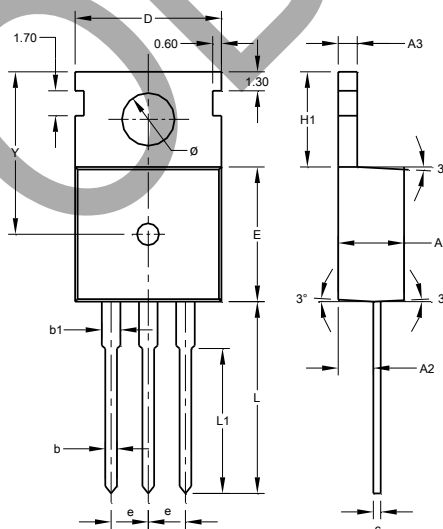


Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.



| ITO-220AB (TO220F-3) | | | |
|----------------------|-------|-------|-------|
| Dim | Min | Max | Typ |
| A | 4.300 | 4.900 | - |
| A2 | 2.520 | 2.920 | - |
| A3 | 2.350 | 2.900 | - |
| b | 0.550 | 0.900 | - |
| b1 | 1.000 | 1.400 | - |
| b2 | 1.100 | 1.500 | - |
| c | 0.450 | 0.600 | - |
| D | 9.70 | 10.30 | - |
| E | 14.70 | 16.00 | - |
| e | - | - | 2.540 |
| L | 12.50 | 13.50 | - |
| L1 | 2.790 | 4.500 | - |
| X | 6.90 | 7.10 | - |
| Y | 3.000 | 3.400 | - |
| Y1 | 3.370 | 3.900 | - |
| Ø | 3.000 | 3.550 | - |
| All Dimensions in mm | | | |



| TO-220AB (Type C) | | | |
|----------------------|--------|--------|--------|
| Dim | Min | Max | Typ |
| A | 4.4 | 4.6 | 4.500 |
| A2 | 2.2 | 2.5 | 2.400 |
| A3 | 1.2 | 1.4 | 1.300 |
| b | 0.700 | 0.900 | - |
| b1 | 1.17 | 1.39 | 1.270 |
| c | 0.400 | 0.600 | - |
| D | 9.800 | 10.200 | - |
| E | 9.000 | 9.400 | - |
| e | - | - | 2.54 |
| H1 | 6.300 | 6.700 | - |
| L | 12.600 | 13.600 | - |
| L1 | 9.600 | 10.600 | - |
| Y | - | - | 11.100 |
| Ø | 3.560 | 3.640 | - |
| All Dimensions in mm | | | |

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