

RoHS Compliant Product  
A suffix of "-C" specifies halogen free

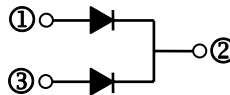
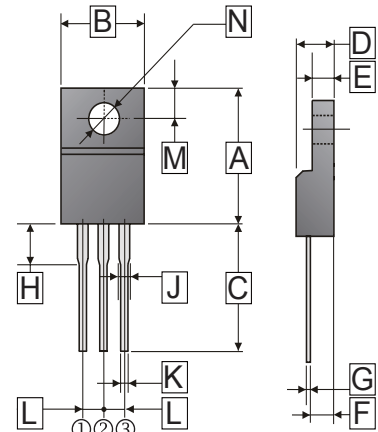
## FEATURES

- Superlow forward voltage drop
- Low reverse current
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

## MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any
- Weight: 1.98 g (Approximate)

### ITO-220



| REF. | Millimeter |       | REF. | Millimeter |       |
|------|------------|-------|------|------------|-------|
|      | Min.       | Max.  |      | Min.       | Max.  |
| A    | 14.60      | 15.70 | H    | 2.70       | 3.80  |
| B    | 9.50       | 10.50 | J    | 0.90       | 1.50  |
| C    | 12.60      | 14.00 | K    | 0.50       | 0.90  |
| D    | 4.30       | 4.70  | L    | 2.34       | 2.74  |
| E    | 2.30       | 3.2   | M    | 2.40       | 3.00  |
| F    | 2.30       | 2.80  | N    | ∅ 3.0      | ∅ 3.4 |
| G    | 0.30       | 0.70  |      |            |       |

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, de-rate current by 20%.)

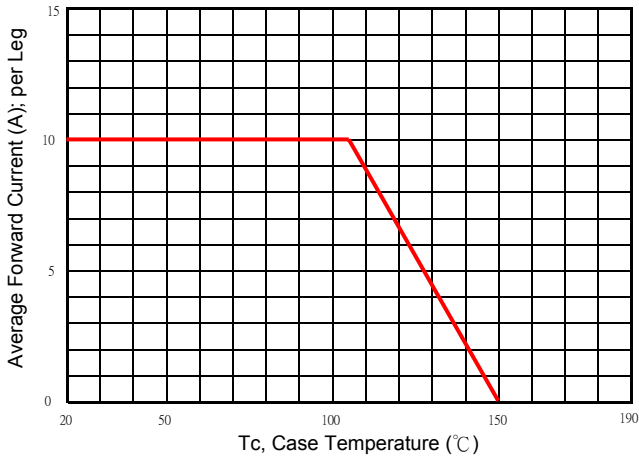
| Parameter  |  | Symbol          | Rating    | Unit              |
|--|--|-----------------|-----------|-------------------|
| Maximum Recurrent Peak Reverse Voltage   |  | $V_{RRM}$       | 60        | V                 |
| Working Peak Reverse Voltage   |  | $V_{RSM}$       | 60        | V                 |
| Maximum DC Blocking Voltage  |  | $V_{DC}$        | 60        | V                 |
| Maximum Average Forward Rectified Current  | (Per Leg)  | $I_F$           | 10        | A                 |
|  | (Per Device)   |                 | 20        |                   |
| Peak Forward Surge Current, 8.3 ms single half sine-wave Superimposed on rated load (JEDEC method) |  | $I_{FSM}$       | 200       | A                 |
| Maximum Instantaneous Forward Voltage  | ( $I_F = 10\text{ A}$ , $T_J = 25^\circ\text{C}$ , per leg)  | $V_F$           | 0.57      | V                 |
|  | ( $I_F = 10\text{ A}$ , $T_J = 125^\circ\text{C}$ , per leg) |                 | 0.52      |                   |
| Maximum DC Reverse Current at Rated DC Blocking Voltage <sup>3</sup>                               | $T_J = 25^\circ\text{C}$                                     | $I_R$           | 0.12      | mA                |
|  | $T_J = 100^\circ\text{C}$                                    |                 | 10        |                   |
| Typical Junction Capacitance <sup>1</sup>  |  | $C_J$           | 620       | pF                |
| Typical Thermal Resistance <sup>2</sup>  |  | $R_{\theta JC}$ | 8         | °C /W             |
| Voltage Rate of Change (Rated $V_R$ )  |  | $dv/dt$         | 10000     | V / $\mu\text{s}$ |
| Operating Temperature Range  |  | $T_J$           | -50 ~ 150 | °C                |
| Storage Temperature Range  |  | $T_{STG}$       | -50 ~ 150 | °C                |

### NOTES:

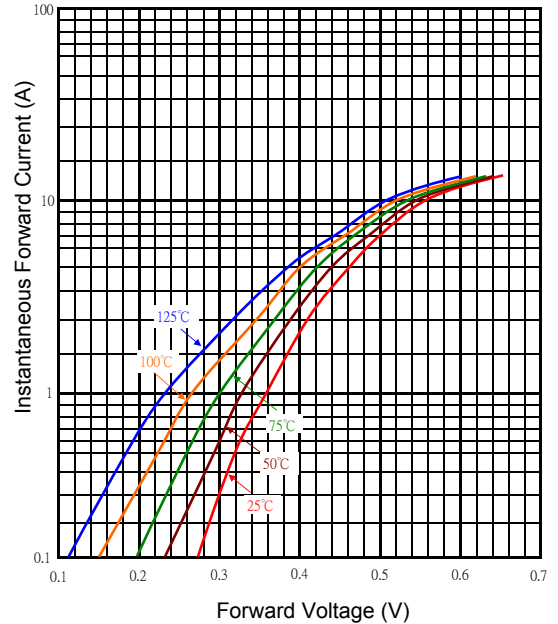
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.
3. Pulse Test : Pulse Width = 300  $\mu\text{s}$ , Duty Cycle  $\leq 2.0\%$ .

**RATINGS AND CHARACTERISTIC CURVES**

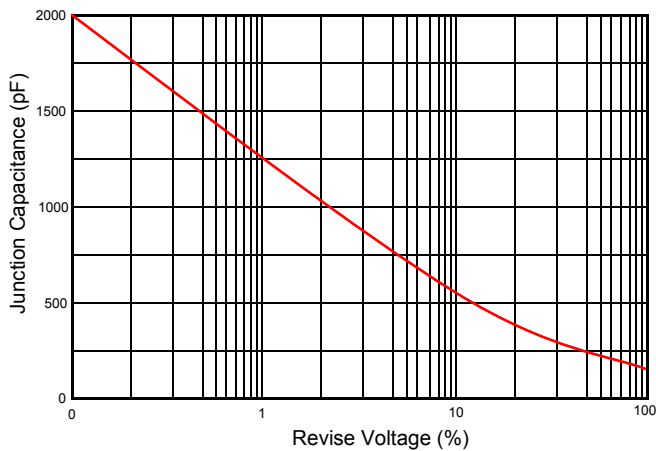
Typical Forward Current Derating Curve



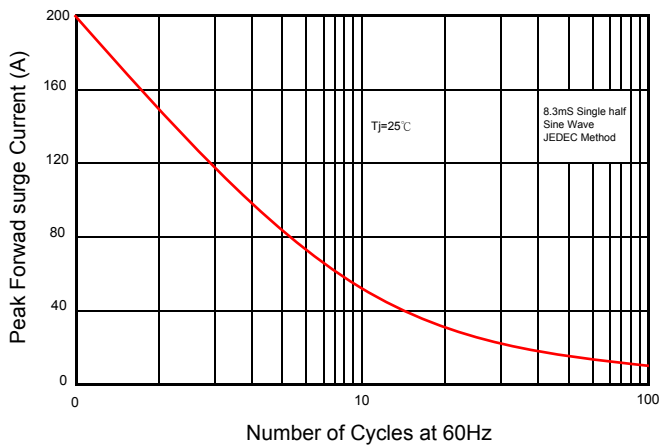
Typical Forward Characteristic



Typical Junction Capacitance



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic

