

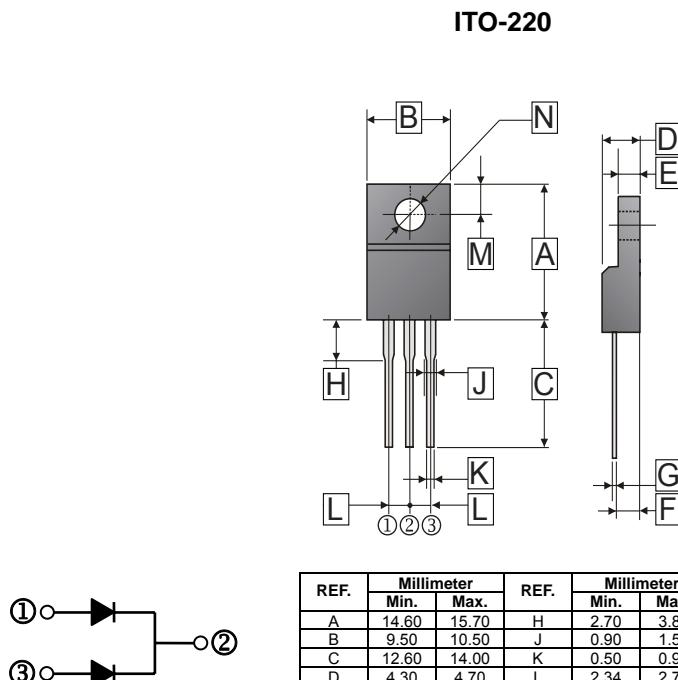
RoHS Compliant Product  
A suffix of "C" specifies halogen free

## FEATURES

- Low 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)



## 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	$V_{RRM}$	100	V
Working Peak Reverse Voltage	$V_{RSM}$	100	V
Maximum DC Blocking Voltage	$V_{DC}$	100	V
Maximum Average Forward Rectified Current	$I_F$	20	A
(Per Leg)		40	
(Per Device)			
Peak Forward Surge Current, 8.3 ms single half sine-wave Superimposed on rated load (JEDEC method)	$I_{FSM}$	300	A
Maximum Instantaneous Forward Voltage	$V_F$	0.82	V
( $I_F = 20$ A, $T_J = 25^\circ\text{C}$ , per leg)		0.69	
( $I_F = 20$ A, $T_J = 125^\circ\text{C}$ , per leg)			
Maximum DC Reverse Current at Rated DC Blocking Voltage <sup>3</sup>	$I_R$	0.1	mA
$T_J=25^\circ\text{C}$		2	
$T_J=100^\circ\text{C}$			
Typical Junction Capacitance <sup>1</sup>	$C_J$	520	pF
Typical Thermal Resistance <sup>2</sup>	$R_{\theta JC}$	8.0	°C / W
Voltage Rate of Change (Rated $V_R$ )	$dv/dt$	10000	V / µs
Operating Temperature Range	$T_J$	-50 ~ 175	°C
Storage Temperature Range	$T_{STG}$	-50 ~ 150	°C

### NOTES:

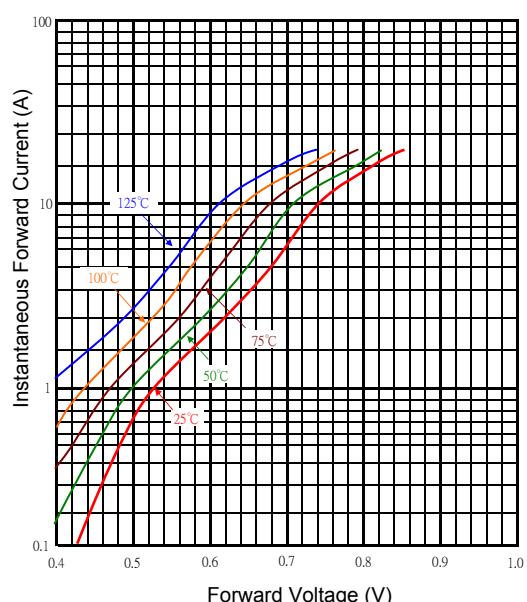
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.
3. Pulse Test : Pulse Width = 300 µs, Duty Cycle  $\leq$  2.0%.

## RATINGS AND CHARACTERISTIC CURVES

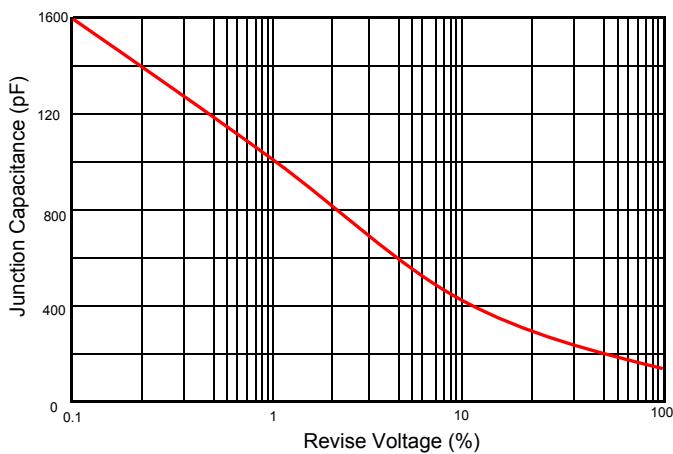
Typical Forward Current Derating Curve



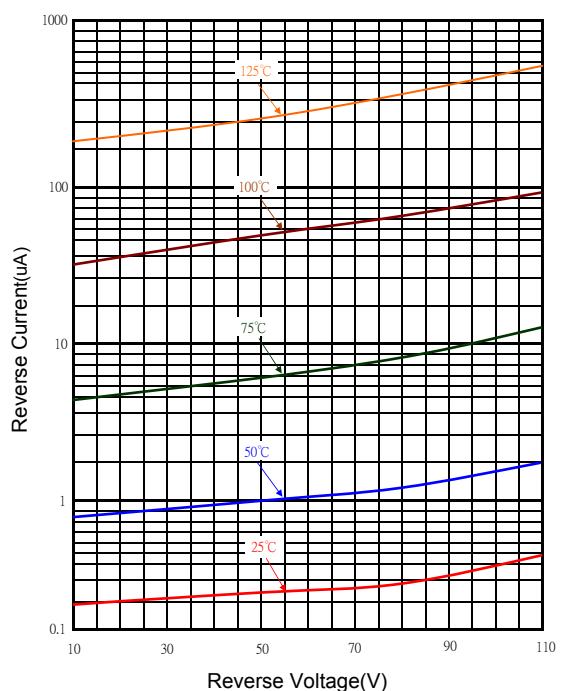
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

