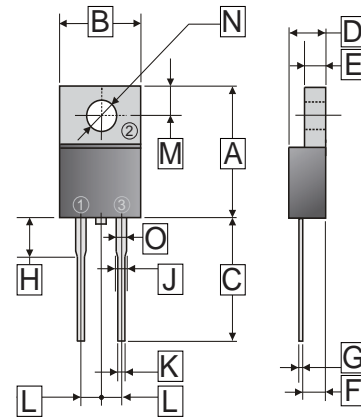


RoHS Compliant Product  
A suffix of "-C" specifies halogen free

## FEATURES

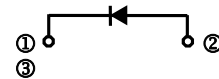
- High Surge Capacity
- 150°C Operating Junction Temperature
- Low Power Loss, High Efficiency
- High-Switching Speed 21 Nanosecond Recovery Time
- Low Forward Voltage, High Current Capability
- Low Stored Charge Majority Carrier Conduction
- Plastic Material Used Carries Underwriters Laboratory Flammability Classification 94V-O
- Weight: 1.64 grams (approximate)

### TO-220A



Dimensions in millimeters

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.68	15.50	H	3.57	4.20
B	9.7	10.4	J	-	1.30
C	13.06	14.62	K	0.72	0.96
D	4.22	4.98	L	4.84	5.32
E	1.14	1.38	M	2.48	2.98
F	2.20	2.98	N	∅ 3.7	∅ 3.9
G	0.27	0.55	O	1.12	1.37



## 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%.)

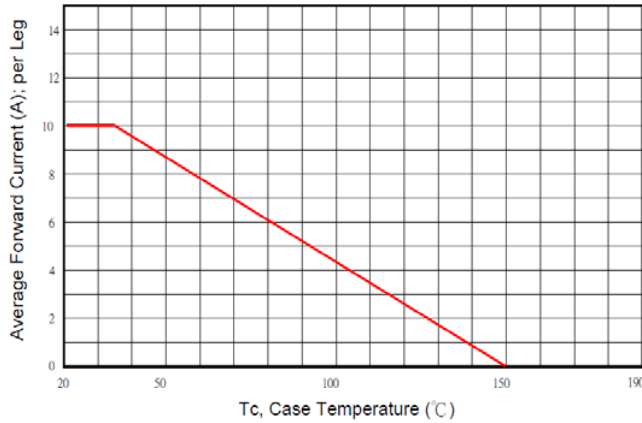
Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	600	V
Working Peak Reverse Voltage	$V_{RWM}$	600	V
DC Blocking Voltage	$V_R$	480	V
Average Rectifier Forward Current	$I_{F(AV)}$	10	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase, 60Hz)	$I_{FSM}$	110	A
Max. Instantaneous Forward Voltage ( $I_F = 10\text{ A}$ , $T_C = 25^\circ\text{C}$ )	$V_F$	2.8	V
Typical Forward Voltage ( $I_F = 10\text{ A}$ , $T_C = 125^\circ\text{C}$ )		1.8	
Max. Instantaneous Reverse Current	$I_R$	$T_C = 25^\circ\text{C}$	$\mu\text{A}$
		$T_C = 125^\circ\text{C}$	
Max. Reverse Recovery Time ( $I_F = 0.5\text{ A}$ , $V_R = 30\text{ V}$ , $dI_F / dt = 100\text{ A} / \mu\text{s}$ )	$T_{RR}$	30	nS
Typical Reverse Recovery Time ( $I_F = 0.5\text{ A}$ , $V_R = 30\text{ V}$ , $dI_F / dt = 100\text{ A} / \mu\text{s}$ )		20	
Typical Junction Capacitance (Reverse Voltage of 0V & $f = 1\text{ MHz}$ )	$C_P$	180	pF
Thermal Resistance <sup>1</sup>	$R_{\theta JA}$	12	$^\circ\text{C} / \text{W}$
Thermal Resistance <sup>2</sup>	$R_{\theta JC}$	4	$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-65~150	$^\circ\text{C}$

Notes:

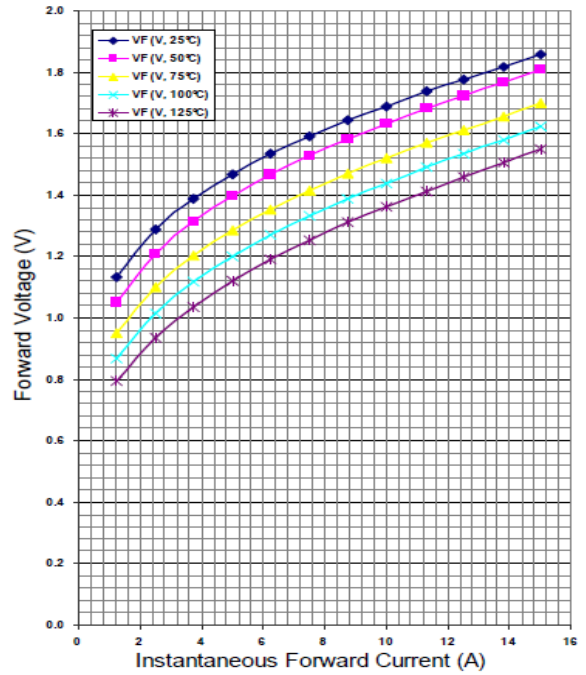
1. Thermal Resistance Junction to Ambient.
2. Thermal Resistance Junction to Case.

**RATINGS AND CHARACTERISTIC CURVES**

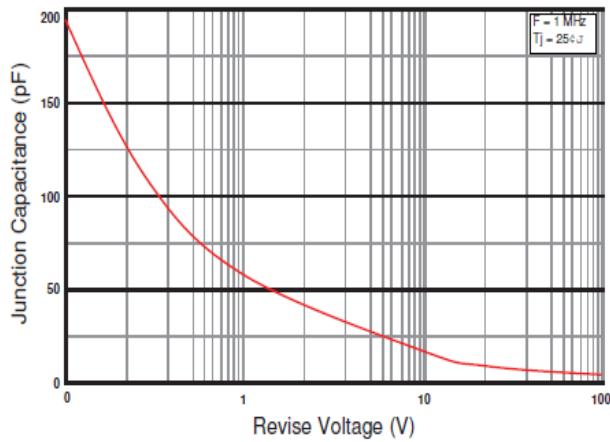
Typical Forward Current Derating Curve



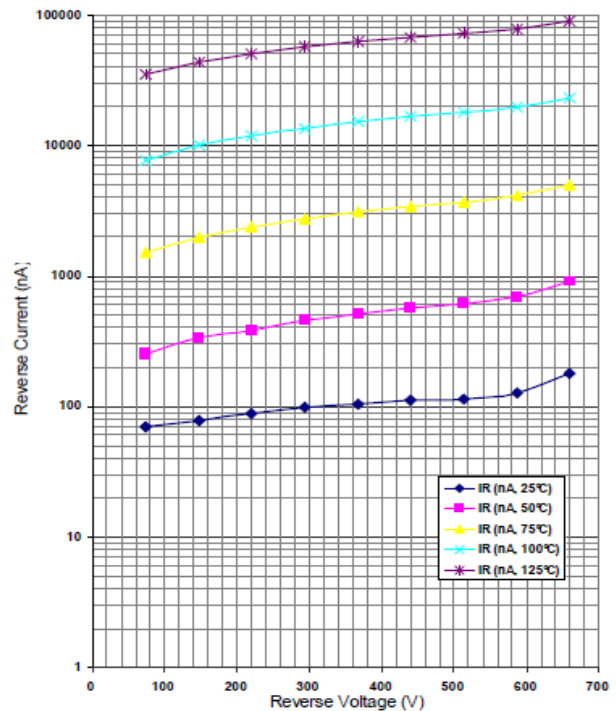
Typical Forward Characteristic



Typical Junction Capacitance



Typic Reverse Curve



Maximum Non- Repetitive Forward Surge Current

