

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

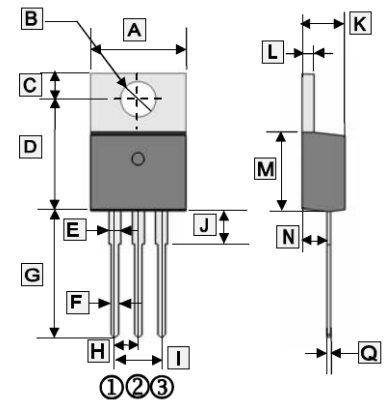
## FEATURES

- Low forward voltage drop
- 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

TO-220J



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	10.010	10.350	I	4.980	5.180
B	3.735	3.935	J	3.560	3.960
C	2.590	2.890	K	4.470	4.670
D	12.060	12.460	L	1.200	1.400
E	1.170	1.370	M	8.500	8.900
F	0.710	0.910	N	2.520	2.820
G	13.400	13.800	Q	0.330	0.650
H	2.540 TYP.				

## 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	$V_{RRM}$	40	V
Working Peak Reverse Voltage	$V_{RWM}$	40	V
Maximum DC Blocking Voltage	$V_{DC}$	40	V
Maximum Average Forward Rectified Current	$I_F$	5	A
(Per Leg)		10	
Peak Forward Surge Current, 8.3 ms single half sine-wave	$I_{FSM}$	125	A
Power dissipation	$P_D$	2	W
Typical Thermal Resistance	$R_{\theta JA}$	62.5	°C/W
Typical Thermal Resistance	$R_{\theta JC}$	2	°C/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	150, -55~150	°C

## ELECTRICAL CHARACTERISTICS

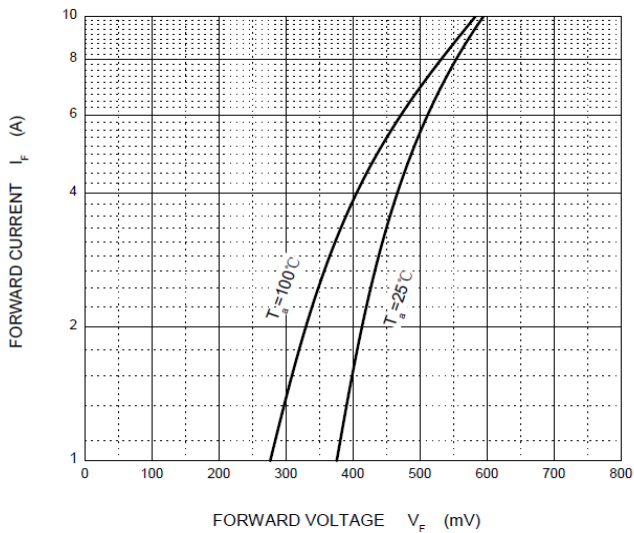
Parameter	Symbol	MIN.	Typ.	Max.	Unit	Test Condition
Reverse voltage	$V_{BR}$	40	-	-	V	
Maximum Instantaneous Forward Voltage	$V_F$	-	-	0.7	V	$I_F=5A, T_J=25^\circ C$
Maximum DC Reverse Current at Rated DC Blocking Voltage <sup>2</sup>	$I_R$	-	-	0.1	mA	$V_R=100V, T_J=25^\circ C$
Typical Junction Capacitance <sup>1</sup>	$C_J$	-	235	-	pF	

### NOTES:

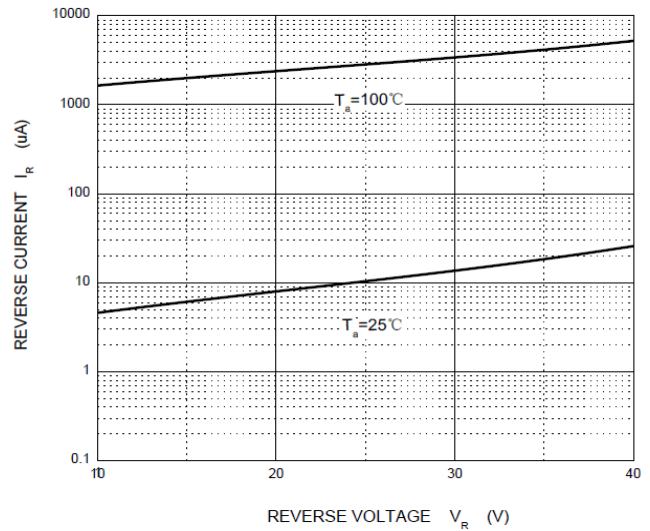
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Pulse Test : Pulse Width = 300  $\mu s$ , Duty Cycle  $\leq$  2.0%.

**RATINGS AND CHARACTERISTIC CURVES**

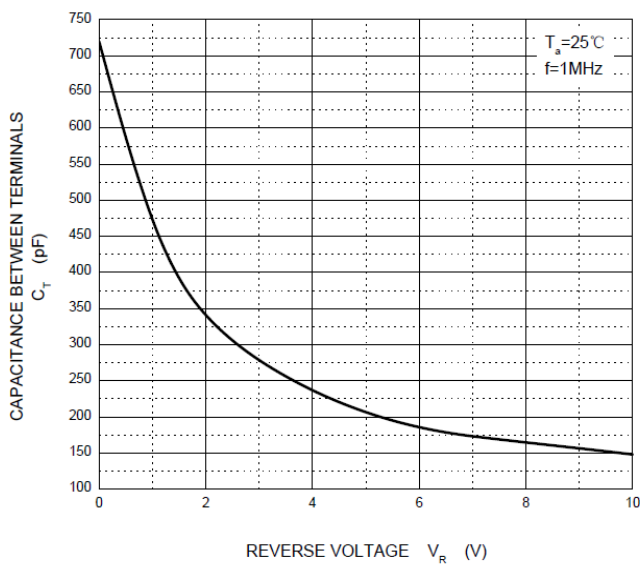
**Forward Characteristics**



**Reverse Characteristics**



**Capacitance Characteristics**



**Power Derating Curve**

