

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

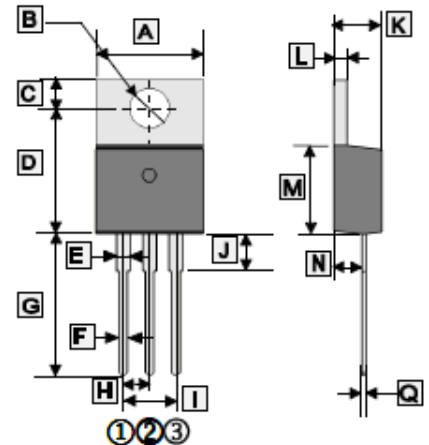
## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0. Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency.
- High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Lead free in comply with EU RoHS

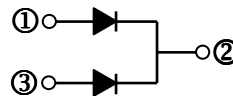
## MECHANICAL DATA

- Case: TO-220J Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any

TO-220J



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	9.57	10.57	I	4.68	5.48
B	3.54	4.14	J	2.95	3.96
C	2.54	2.94	K	4.27	4.87
D	11.86	13.26	L	1.07	1.47
E	0.97	1.57	M	8.0	10.0
F	0.51	1.11	N	2.03	2.92
G	12.7	13.8	Q	0.30	0.65
H	2.540 TYP.				



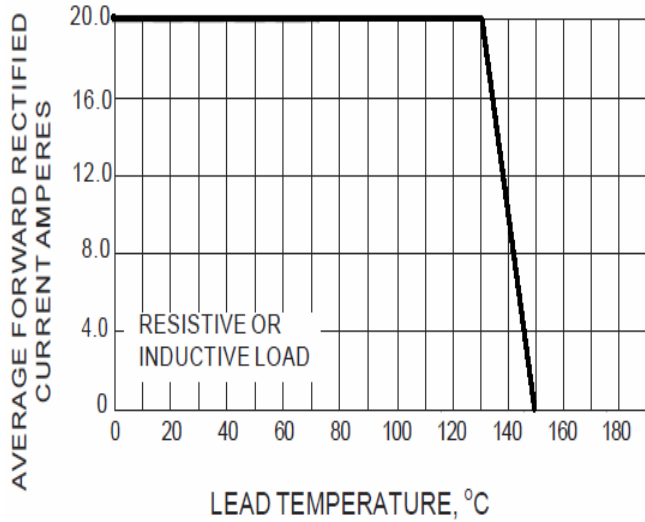
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.

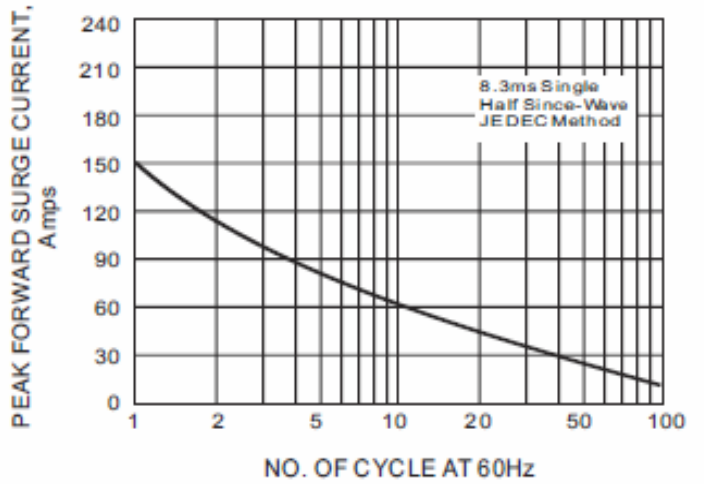
For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Rating	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	60	V
Maximum RMS Voltage	$V_{RMS}$	42	V
Maximum DC Blocking Voltage	$V_{DC}$	60	V
Maximum Average Forward Current (See fig.1)	$I_{F(AV)}$	20	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	150	A
Maximum Forward Voltage @10A, per leg	$V_F$	0.8	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_J=25^\circ\text{C}$	0.05
		$T_J=125^\circ\text{C}$	20
Typical Thermal Resistance	$R_{\theta JC}$	2	$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-50~150	$^\circ\text{C}$

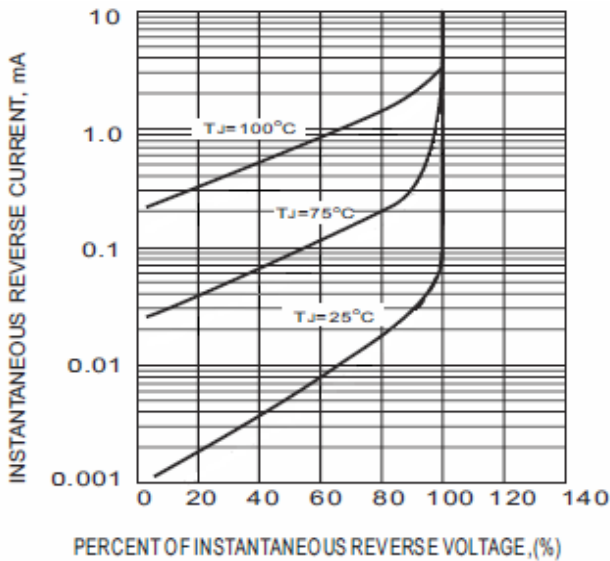
**CHARACTERISTIC CURVES**



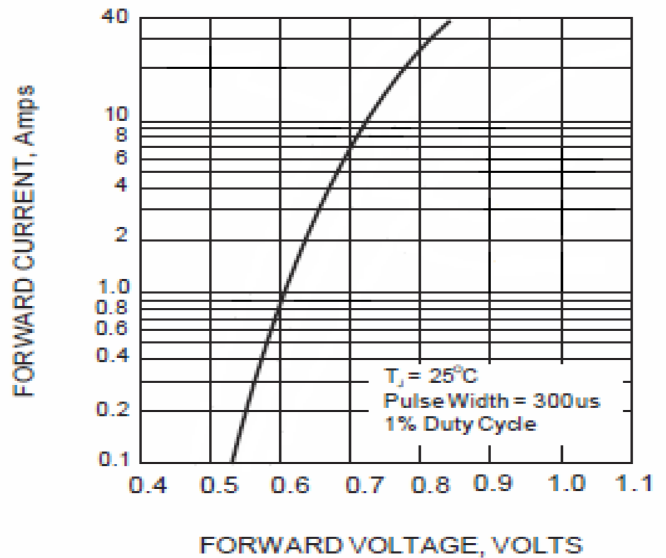
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**