

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

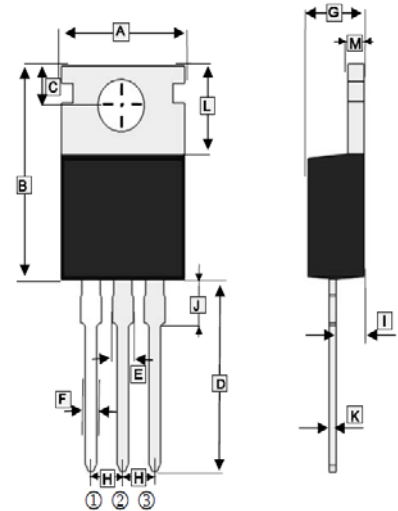
## FEATURES

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

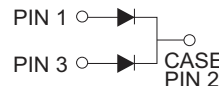
## MECHANICAL DATA

- 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
- Weight: 2.064 grams (approximate)

### TO-220



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	9.7	10.6	H	2.34	2.74
B	14.2	16.5	I	2.0	2.9
C	2.54	3.4	J	2.7	3.3
D	12.7	14.7	K	0.36	0.6
E	1.2	1.8	L	5.8	6.85
F	0.4	1.0	M	1.2	1.4
G	3.6	4.8			



## 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%.)

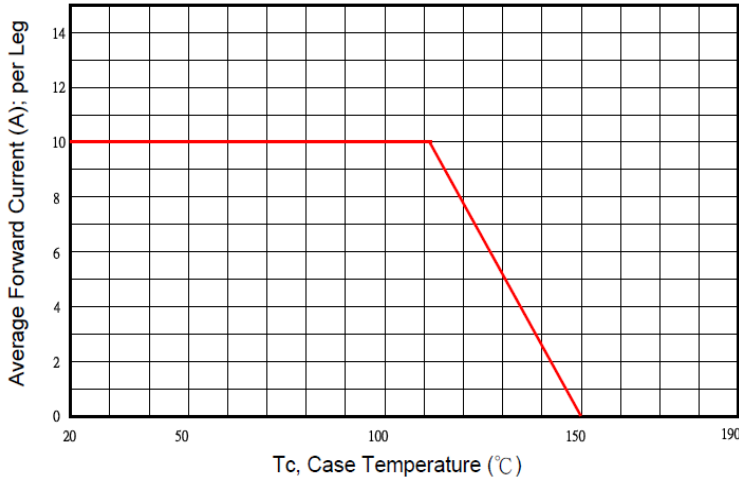
Parameter	Symbol	Rating	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	150	V
Working Peak Reverse Voltage	$V_{RSM}$	150	V
Maximum DC Blocking Voltage	$V_{DC}$	150	V
Maximum Average Forward Rectified Current	Per Leg	10	A
	Per Device	20	
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	180	A
Maximum Instantaneous Forward Voltage	$I_F=10A, T_A=25^\circ C$ , per leg	0.87	V
	$I_F=10A, T_A=125^\circ C$ , per leg	0.76	
Maximum DC Reverse Current at Rated DC Blocking Voltage <sup>4</sup>	$T_A=25^\circ C$	0.03	mA
	$T_A=125^\circ C$	8	
Typical Junction Capacitance <sup>1</sup>	$C_J$	450	pF
Typical Thermal Resistance <sup>2</sup>	$R_{\theta JC}$	2	°C / W
Typical Thermal Resistance <sup>3</sup>	$R_{\theta JA}$	10	°C / W
Voltage Rate Of Change (Rated $V_R$ )	$dv / dt$	10000	V / $\mu s$
Operating Temperature Range $T_J$	$T_J$	-50~150	°C
Storage Temperature Range $T_{STG}$	$T_{STG}$	-65~175	°C

Notes:

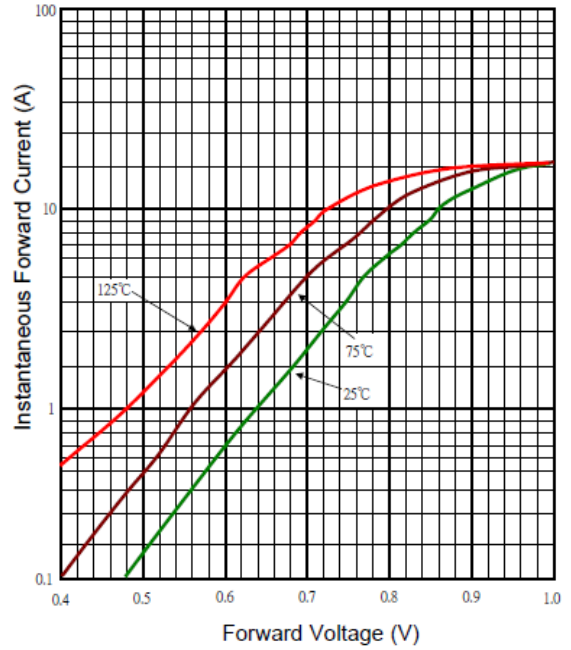
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.
3. Thermal Resistance Junction to Ambient.
4. Pulse test: 300uS pulse width, 1% duty cycle.

**RATINGS AND CHARACTERISTIC CURVES**

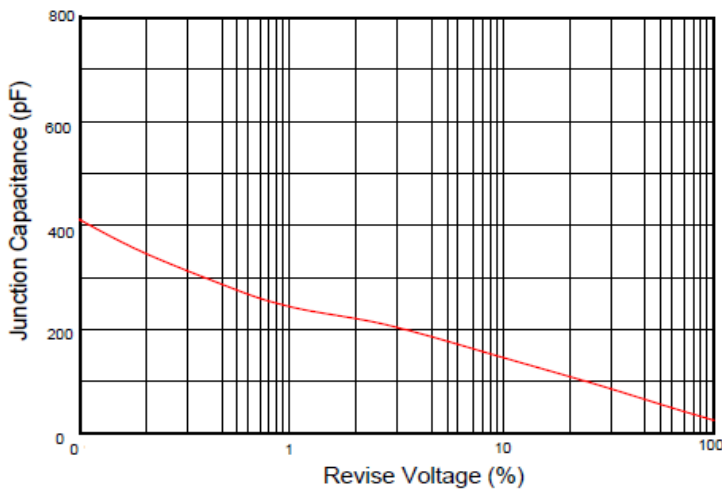
Typical Forward Current Derating Curve



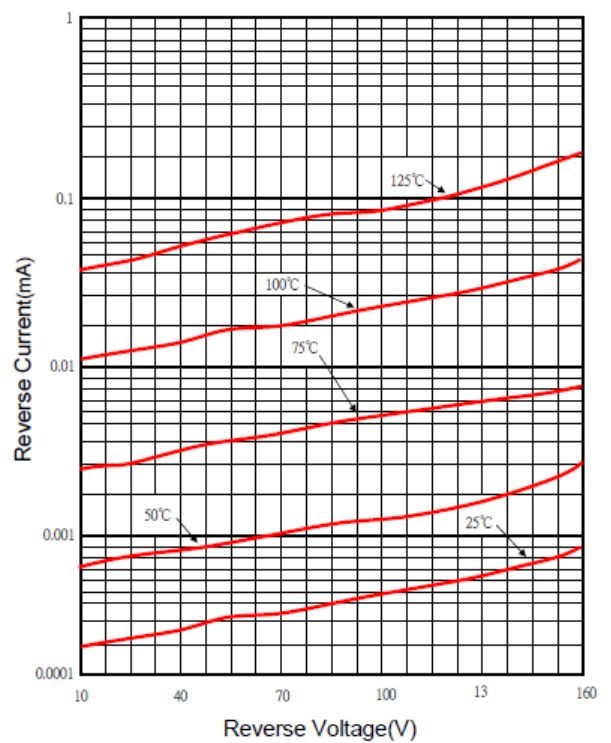
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current

