

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

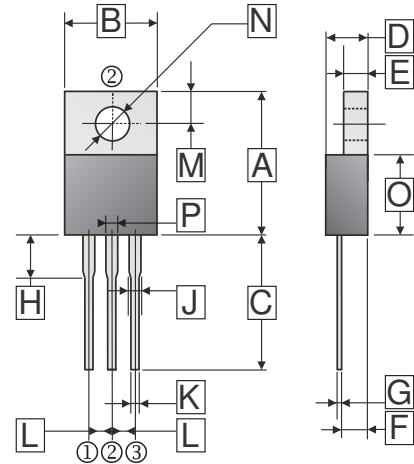
## FEATURES

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

## MECHANICAL DATA

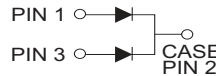
- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any
- Weight: 2.064 grams (approximate)

### TO-220



Dimensions in millimeters

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.22	16.51	J	0.7	1.78
B	9.65	10.67	K	0.38	1.02
C	12.50	14.75	L	2.39	2.69
D	3.56	4.90	M	2.50	3.43
E	0.51	1.45	N	3.10	4.09
F	2.03	2.92	O	8.38	9.65
G	0.31	0.76	P	0.89	1.45
H	3.5	4.5			



## 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%.)

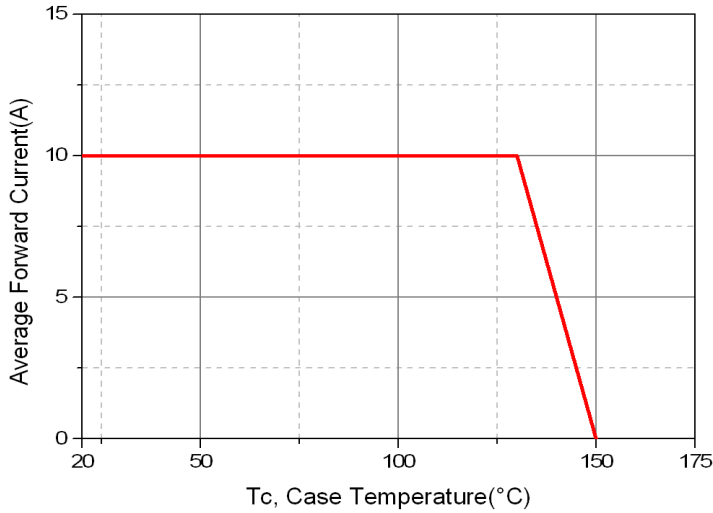
Parameter		Symbol	Rating	Unit
Maximum Recurrent Peak Reverse Voltage		$V_{RRM}$	100	V
Working Peak Reverse Voltage		$V_{RSM}$	100	V
Maximum DC Blocking Voltage		$V_{DC}$	100	V
Maximum Average Forward Rectified Current	Per Leg	$I_F$	10	A
	Per Device		20	
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		$I_{FSM}$	150	A
Maximum Instantaneous Forward Voltage	$I_F=10A, T_A=25^\circ C, \text{ per leg}$	$V_F$	0.85	V
	$I_F=10A, T_A=125^\circ C, \text{ per leg}$		0.74	
Maximum DC Reverse Current at Rated DC Blocking Voltage <sup>3</sup>	$T_A = 25^\circ C$	$I_R$	0.5	mA
	$T_A = 100^\circ C$		10	
Typical Junction Capacitance <sup>1</sup>		$C_J$	150	pF
Typical Thermal Resistance <sup>2</sup>		$R_{\theta Jc}$	2	°C / W
Voltage Rate Of Change (Rated $V_R$ )		$dv / dt$	10000	V / $\mu s$
Operating Temperature Range $T_J$		$T_J$	-50~125	°C
Storage Temperature Range $T_{STG}$		$T_{STG}$	-50~150	°C

Notes:

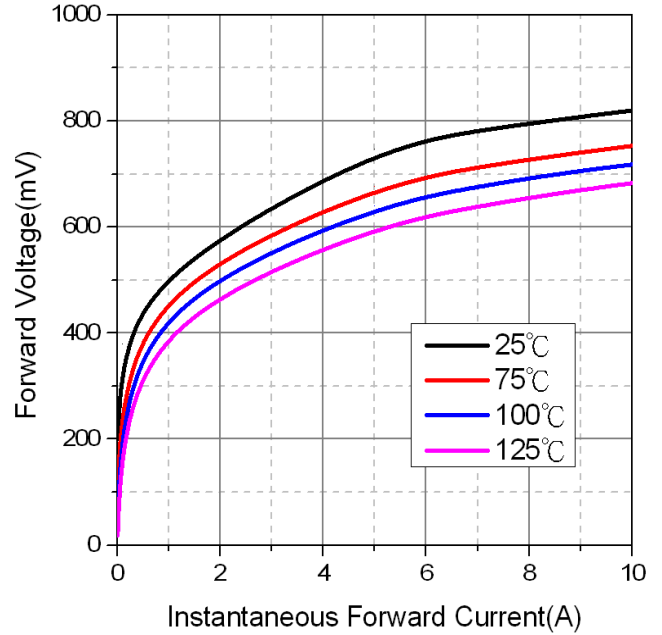
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.
3. Pulse test: 300uS pulse width, 1% duty cycle.

**RATINGS AND CHARACTERISTIC CURVES**

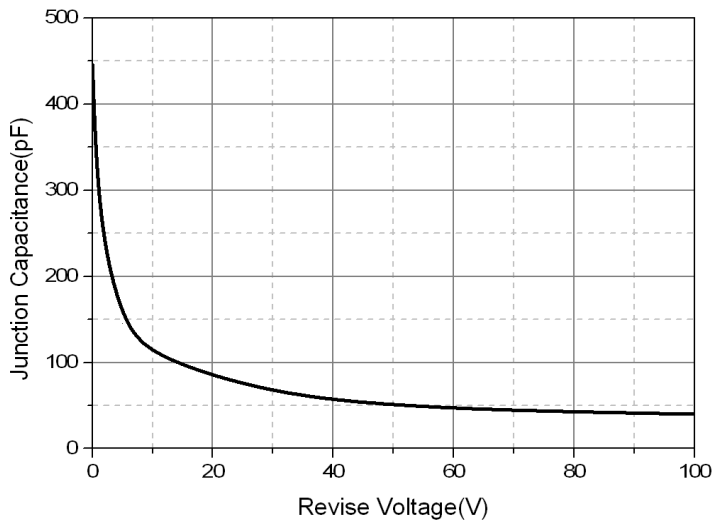
Typical Forward Current Derating Curve



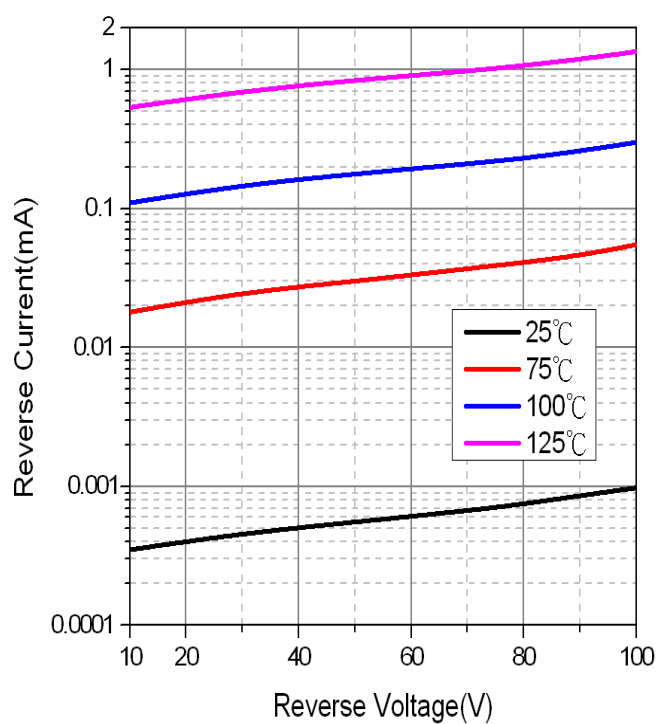
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

