

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

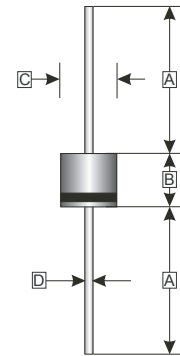
## FEATURES

- Guard ring for overvoltage protection.
- Very small conduction losses.
- Low forward voltage drop.

## MECHANICAL DATA

- Case Material : Molded Plastic. UL Flammability Classification Rating 94V-O
- Terminals : Lead free Plating (Tin Finish)  
Solderable per MIL-STD-202, Method 208
- Polarity : Cathode Band
- Weight : 1.986 grams (approximate)

R-6



REF.	Millimeter	
	Min.	Max.
A	25.4 REF.	
B	8.6	9.1
C	8.6	9.1
D	1.2	1.3

## ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	45	V
Maximum RMS Voltage	$V_{RMS}$	31.5	V
Maximum DC Blocking Voltage	$V_{DC}$	45	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	12	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	200	A
Maximum Instantaneous Forward Voltage $I_F=12A @ 25^\circ\text{C}$	$V_F$	0.55	V
Maximum DC Reverse Current at rated DC blocking voltage	$I_R$	$T_C=25^\circ\text{C}$	0.5
		$T_C=100^\circ\text{C}$	25
Typical Junction Capacitance <sup>1</sup>	$C_J$	750	pF
Typical Thermal Resistance	$R_{\theta JA}$	12	$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	$T_J$	-55 ~ 150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 ~ 175	$^\circ\text{C}$

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

**CHARACTERISTIC CURVES**

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

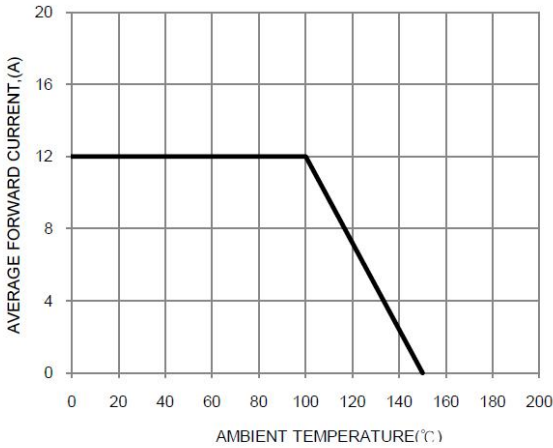


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

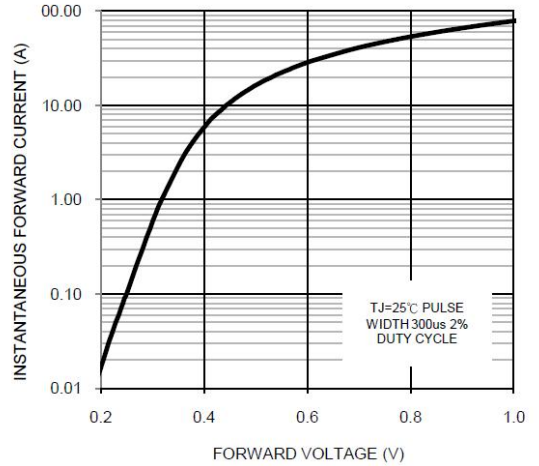


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

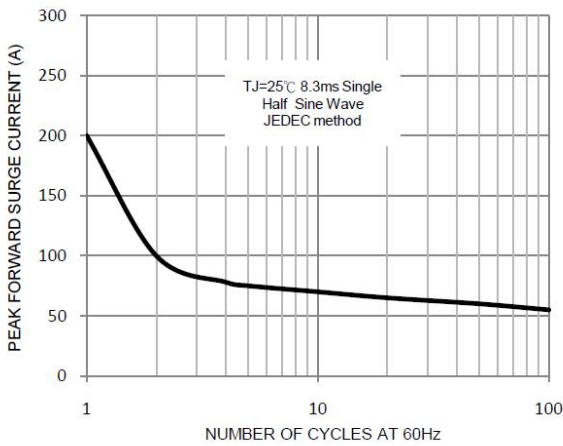


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

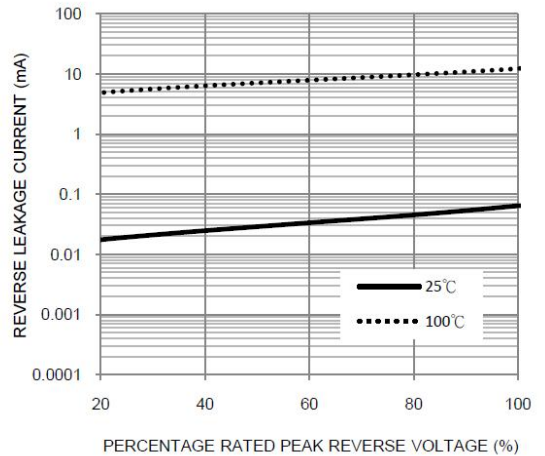


FIG. 5-TYPICAL JUNCTION CAPACITANCE

