

RoHS compliant product  
A suffix of "-C" specifies halogen free

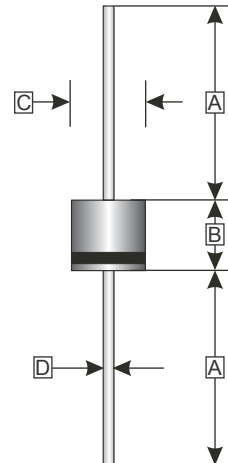
## FEATURES

- Metal of silicon rectifier , majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- Low forward voltage drop
- High current capability
- High surge capacity
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

## MECHANICAL DATA

- Plastic package has UL flammability classification 94V-0
- 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: 2.1 grams (Approximately)

**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

## 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, derate current by 20%.

TYPE NUMBER	SYMBOL	VALUES	UNITS
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 Rectified Current @ $T_C = 95^\circ\text{C}$	$I_{(AV)}$	10	A
Peak Forward Surge Current, 8.3 ms single half sine-wave Superimposed on rated load (JEDEC method)	$I_{FSM}$	200	A
Peak Forward Voltage ( $I_F = 10$ Amps DC) (Note 1)	$V_F$	0.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.5 50	mA mA
Typical Junction Capacitance (Note 2)	$C_J$	450	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	3.0	$^\circ\text{C} / \text{W}$
Operating & Storage Temperature Range	$T_J, T_{STG}$	-55 ~ +150	$^\circ\text{C}$

### NOTES:

1. 300us Pulse Width, 2% Duty Cycle.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
3. Thermal Resistance Junction to Case.

**ELECTRICAL CHARACTERISTIC CURVES**

FIG.1-FORWARD CURRENT DERATING CURVE

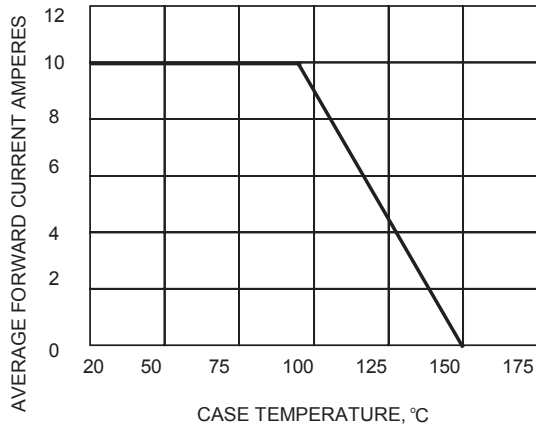


FIG.2-MAXIMUM NON-REPETITIVE SURGE

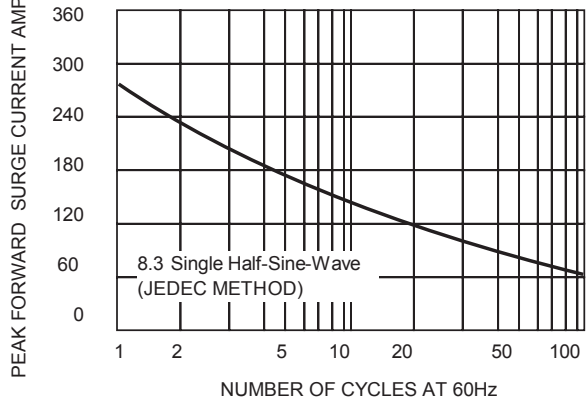


FIG.3-TYPICAL REVERSE CHARACTERISTICS

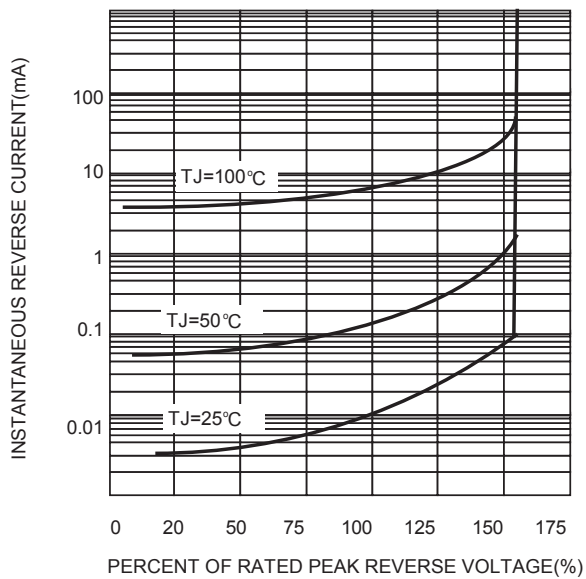


FIG.4-TYPICAL FORWARD CHARACTERISTICS

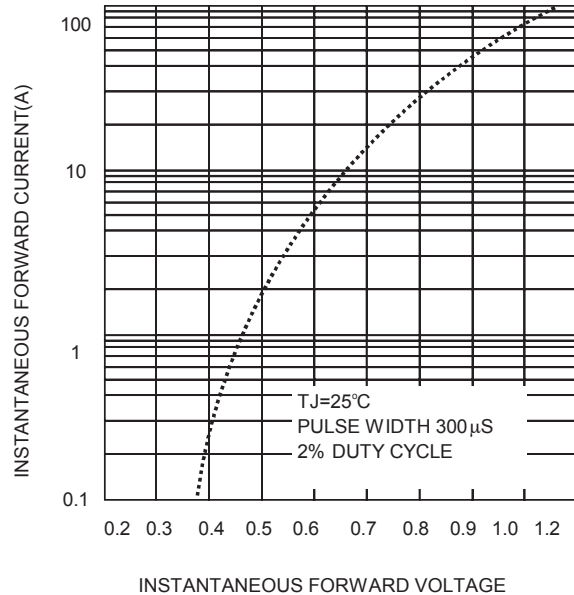


FIG.5-TYPICAL JUNCTION CAPACITANCE

