

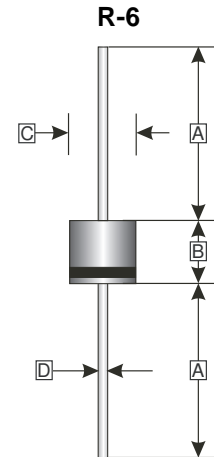
RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

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

## MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any



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, de-rate current by 20%.)

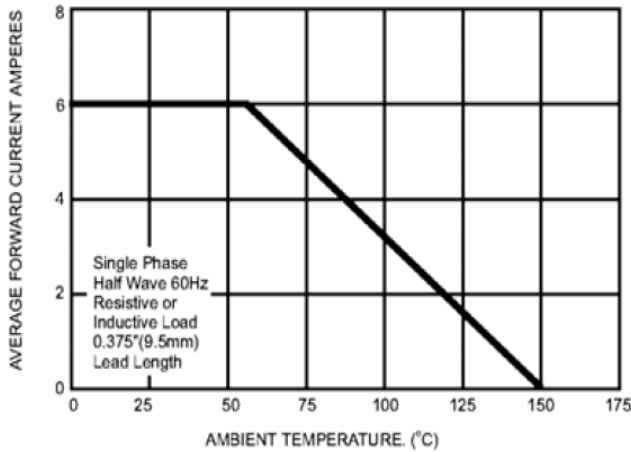
Parameter	Symbol	Part Number							Unit
		FR601G	FR602G	FR603G	FR604G	FR605G	FR606G	FR607G	
Maximum Recurrent Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Instantaneous Forward Voltage @ $I_F = 6A$	$V_F$	1.3							V
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length @ $T_A = 55^\circ C$	$I_O$	6							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	250							A
Maximum DC Reverse Current at rated DC blocking voltage	$I_R$	$T_A = 25^\circ C$	5.0						$\mu A$
		$T_A = 125^\circ C$	200						
Maximum Reverse Recovery Time <sup>1</sup>	$T_{RR}$	150				250	500		nS
Typical Junction Capacitance <sup>2</sup>	$C_J$	100							pF
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 ~ 150							°C

Note:

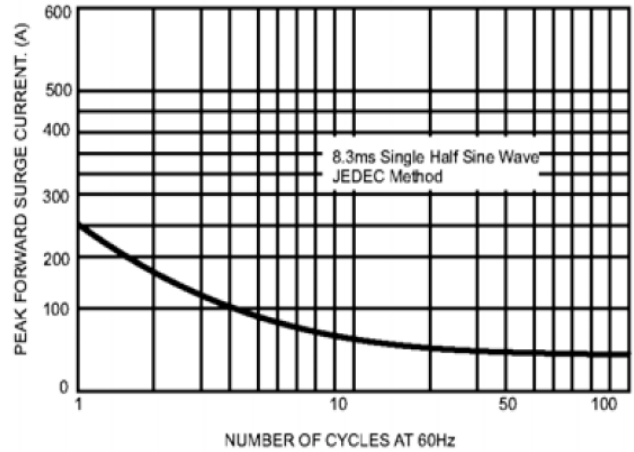
1.  $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$
2.  $f = 1MHz$  and applied 4V DC reverse voltage

**RATINGS AND CHARACTERISTIC CURVES**

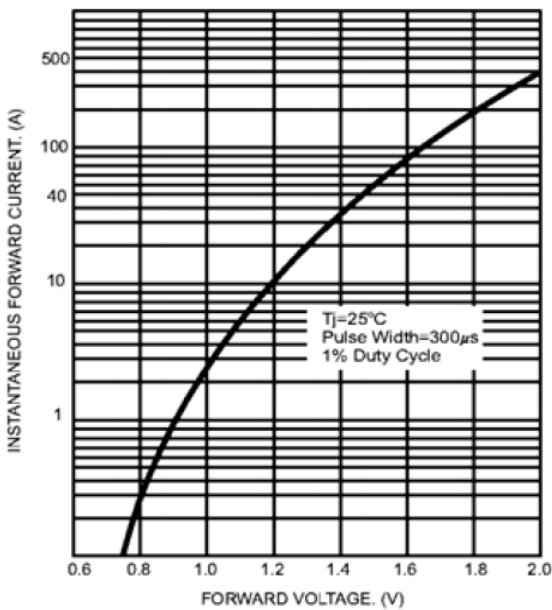
**FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE**



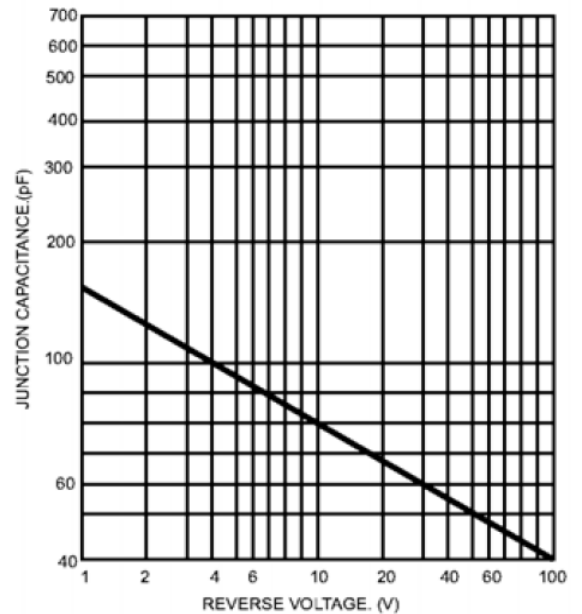
**FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



**FIG.5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**

