Elektronische Bauelemente

FR601G ~ FR607G

Voltage 50 ~ 1000 V

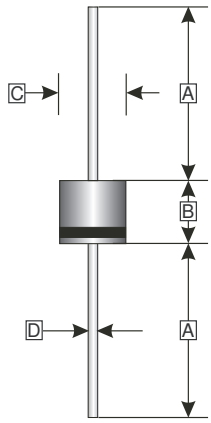
6.0Amp Glass Passivated Fast Recovery Rectifiers

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

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

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

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°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	T_A=25°C	I_R	5.0							μA
	T_A=125°C		200							
Maximum Reverse Recovery Time [1]		T_{RR}	150				250	500		nS
Typical Junction Capacitance [2]		C_J	100							pF
Operating and Storage Temperature Range		T_J ,T_{STG}	-55 ~ 150							℃

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

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RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

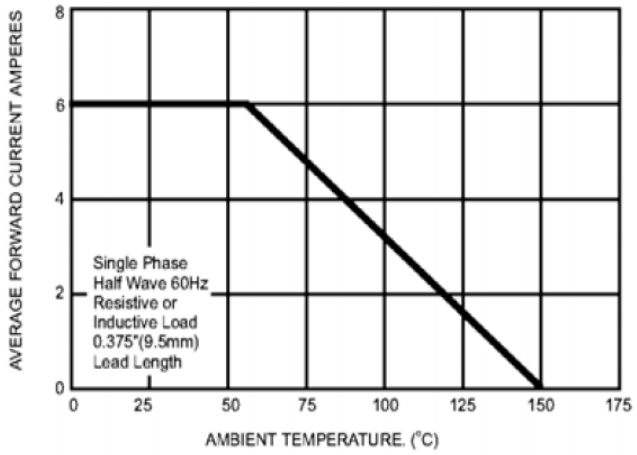

FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

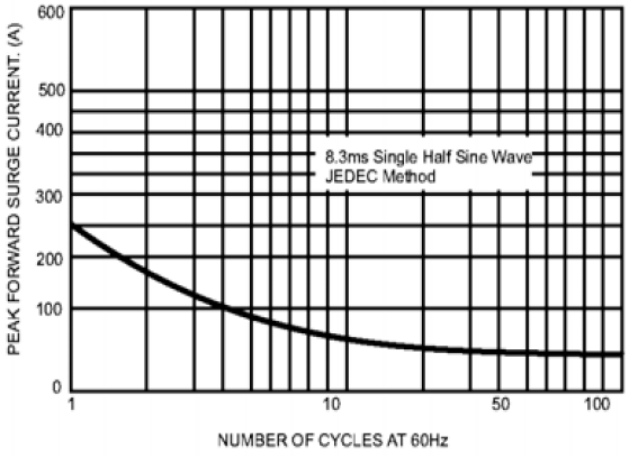

FIG.3- TYPICAL FORWARD CHARACTERISTICS

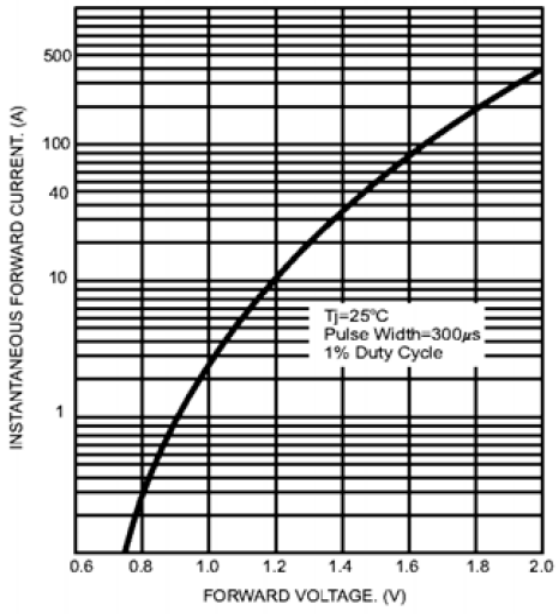

FIG.4- TYPICAL JUNCTION CAPACITANCE

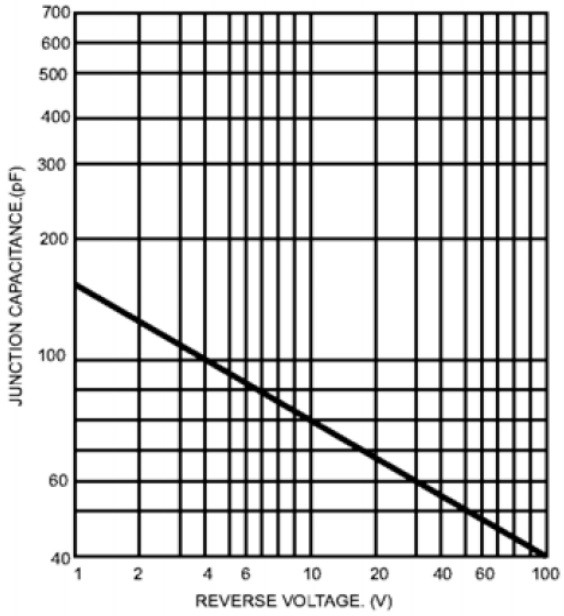
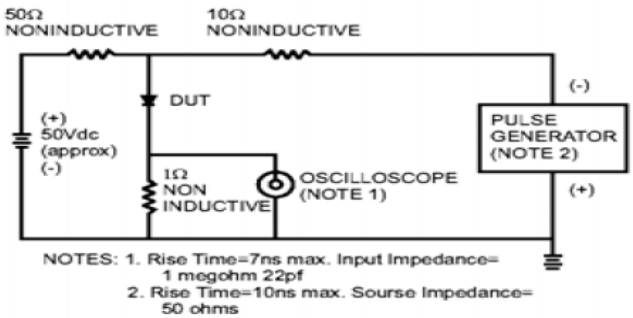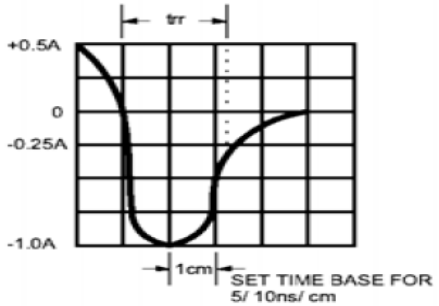
FIG.5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM