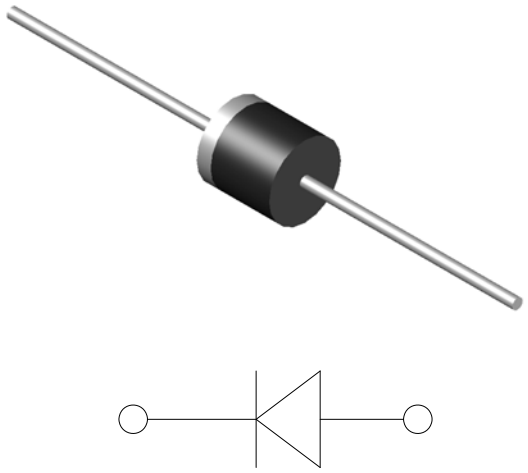
FR601G THRU FR607G

Fast Recovery Rectifier



Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Mechanical Data

- **Package**: R-6

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant

- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:**Color band denotes cathode end

■Maximum Ratings (Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	FR601G	FR602G	FR603G	FR604G	FR605G	FR606G	FR607G
Device marking code			FR601G	FR602G	FR603G	FR604G	FR605G	FR606G	FR607G
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average Forward Current @60Hz sine wave, Resistance load, Ta=65℃	$I_{F(AV)}$	A	6.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	200						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			400						
Current squared time @1ms≤t8.3≤ms Tj=25℃，Rating of per diode	I^2t	A^2s	166						
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	Cj	pF	70				56		
Storage Temperature	Tstg	℃	-55 ~ +150						
Junction Temperature	Tj	℃	-55 ~ +150						

■Electrical Characteristics（Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	FR601G	FR602G	FR603G	FR604G	FR605G	FR606G	FR607G
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=6.0A	1.3						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j =25℃	2.5						
			T_j =125℃	100						
Maximum reverse recovery time	t_{rr}	ns	I_F=0.5A,I_R=1.0A, I_{rr}=0.25A	150				250	500	

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	FR601G	FR602G	FR603G	FR604G	FR605G	FR606G	FR607G
Typical Thermal Resistance	$R_{\theta J-A}$	℃/W	15						

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
FR601G~FR607G	D1	Approximate 1.95	500	500	5000	Tape
FR601G~FR607G	C1	Approximate 1.95	100	100	5000	Bulk

■ Characteristics (Typical)

FIG.1: Io-Ta Curve

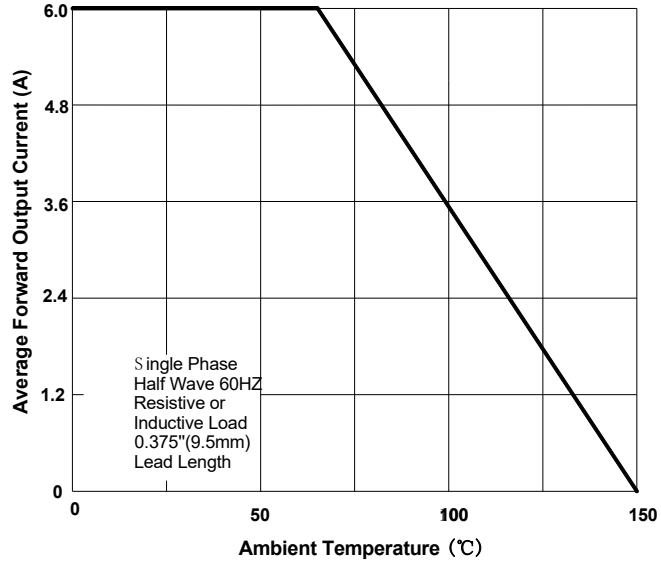


FIG.2: Forward Surge Current Capability

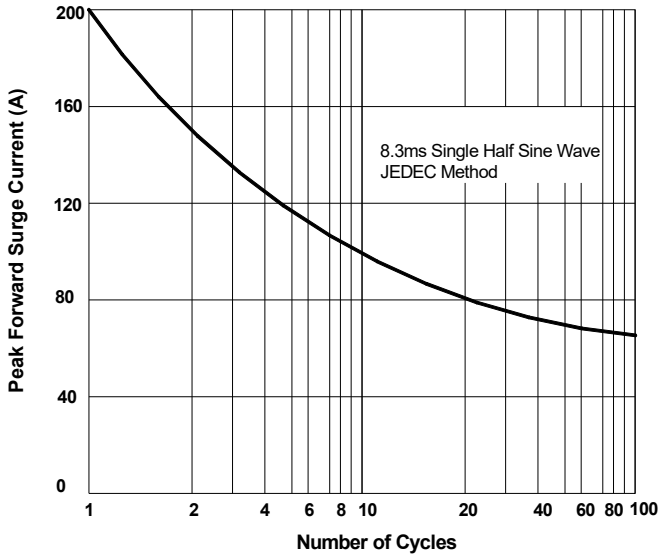


FIG.3: Forward Voltage

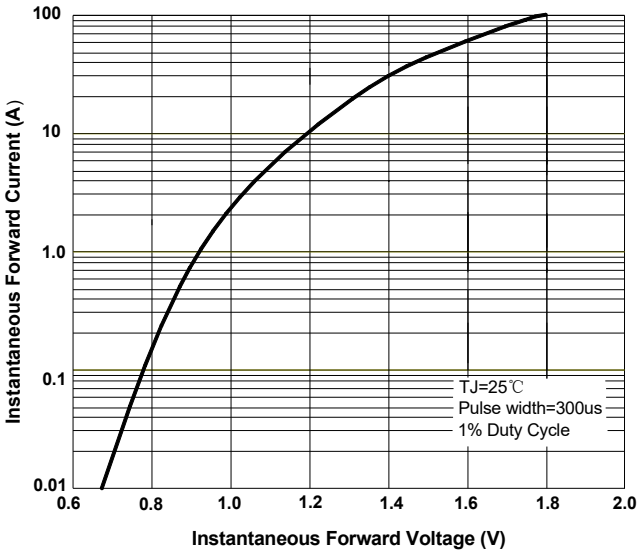


FIG.4: Typical Reverse Characteristics

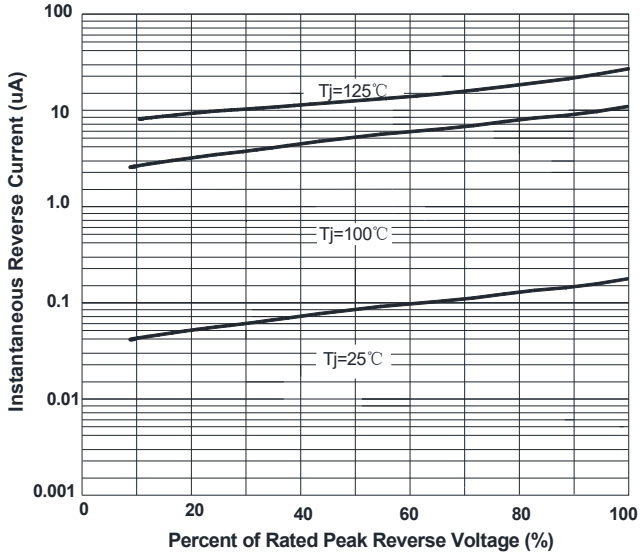
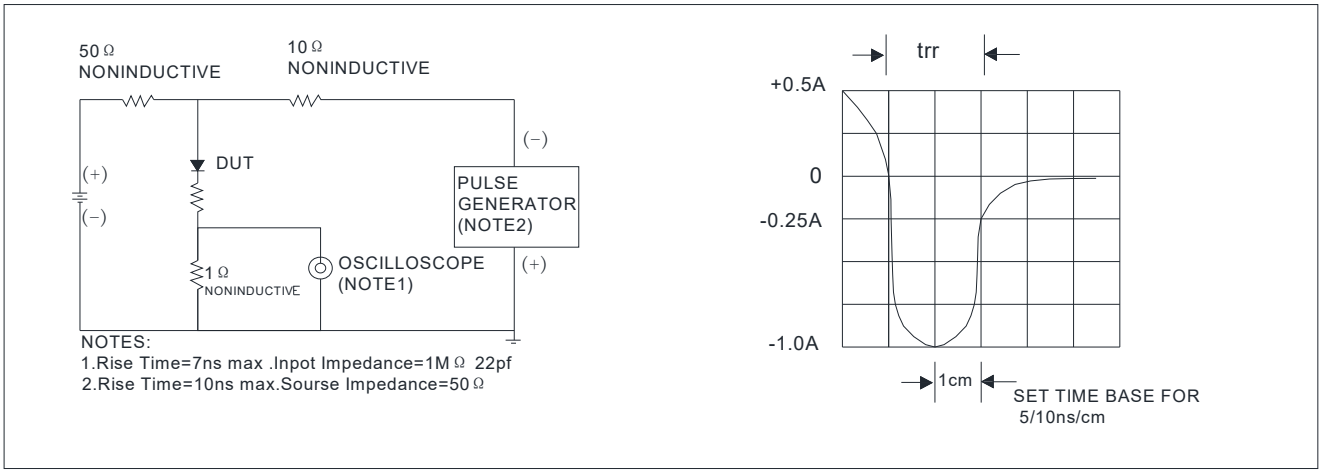
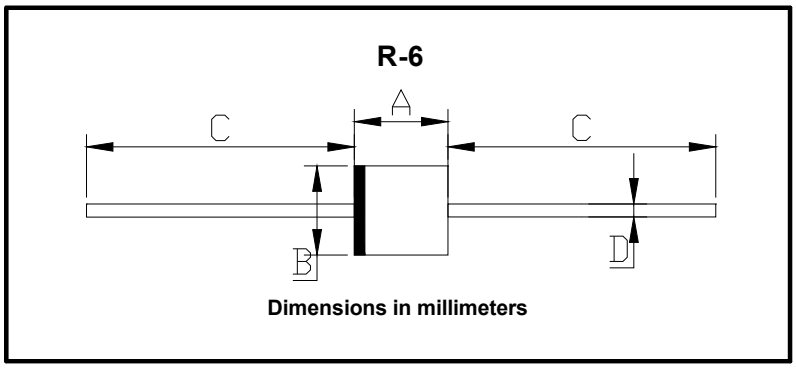


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



R-6		
Dim	Min	Max
A	8.60	9.10
B	8.60	9.10
C	25.4	/
D	1.20	1.32

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