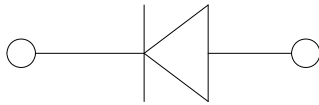
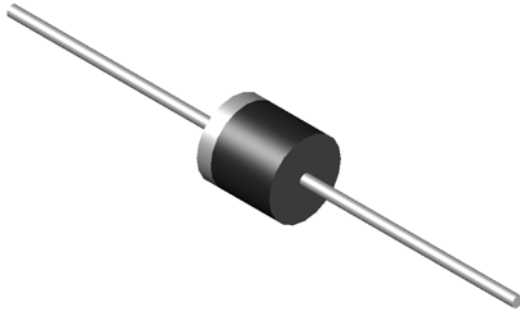


## Fast Recovery Rectifier



### 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°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FR601	FR602	FR603	FR604	FR605	FR606	FR607	
Device marking code			FR601	FR602	FR603	FR604	FR605	FR606	FR607	
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000	
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700	
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000	
Average Forward Current @60Hz sine wave, Resistance load, Ta=65°C	IF(AV)	A	6.0							
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	IFSM	A	200							
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			400							
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	I²t	A²s	166							
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	Cj	pF	70				56			
Storage Temperature	Tstg	°C	-55 ~ +150							
Junction Temperature	Tj	°C	-55 ~ +150							

### ■Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	FR601	FR602	FR603	FR604	FR605	FR606	FR607
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=6.0A	1.3						
Maximum DC reverse current at rated DC blocking voltage per diode	IR	μA	Tj=25°C	2.5						
			Tj=125°C	100						
Maximum reverse recovery time	tr	ns	IF=0.5A, IR=1.0A, IIR=0.25A	150			250	500		



# FR601 THRU FR607

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FR601	FR602	FR603	FR604	FR605	FR606	FR607
Typical Thermal Resistance	R <sub>θJA</sub>	°C/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
FR601 ~ FR607	D1	Approximate 1.95	500	500	5000	Tape
FR601 ~ FR607	C1	Approximate 1.95	100	100	5000	Bulk

## ■ Characteristics (Typical)

FIG.1: I<sub>o</sub>-T<sub>a</sub> Curve

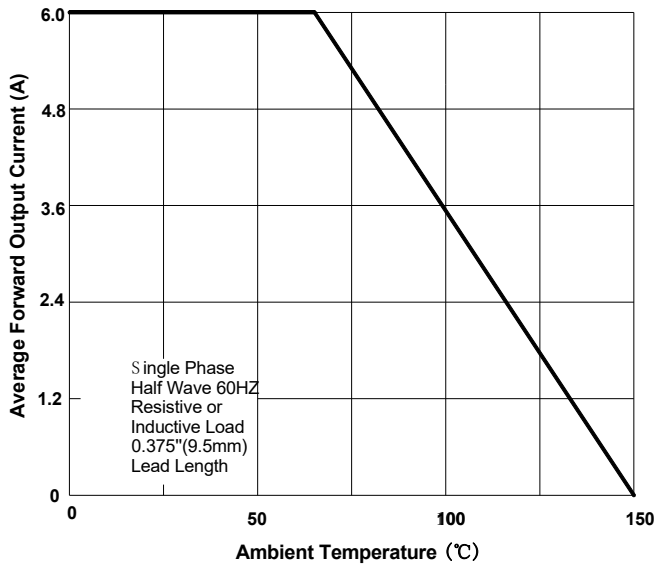


FIG.2: Forward Surge Current Capability

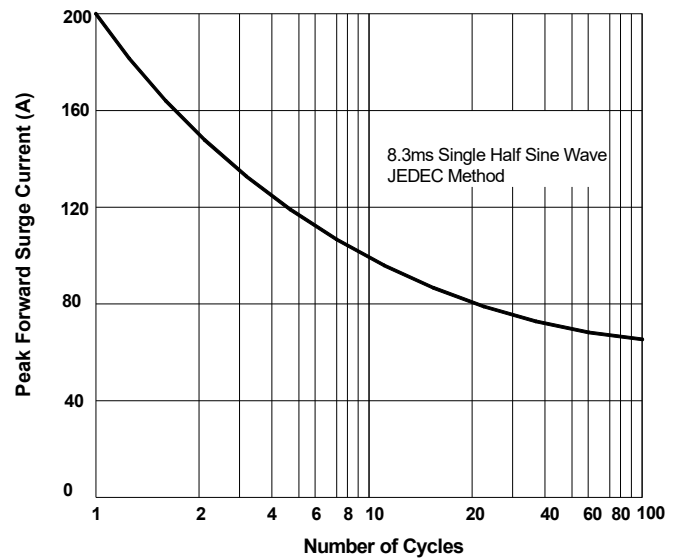


FIG.3: Forward Voltage

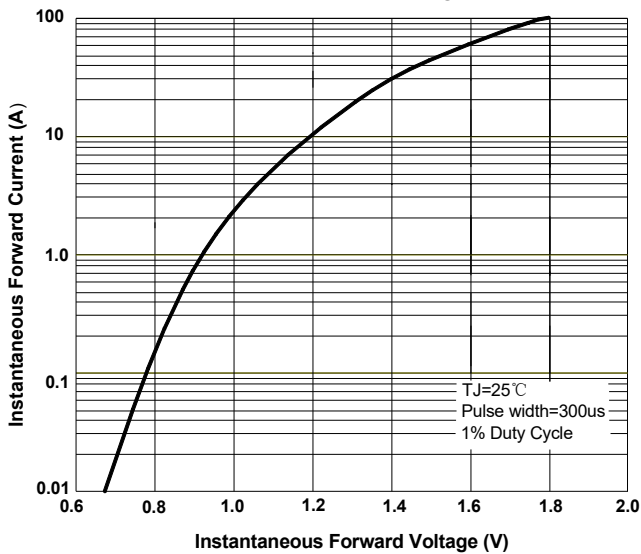


FIG.4: Typical Reverse Characteristics

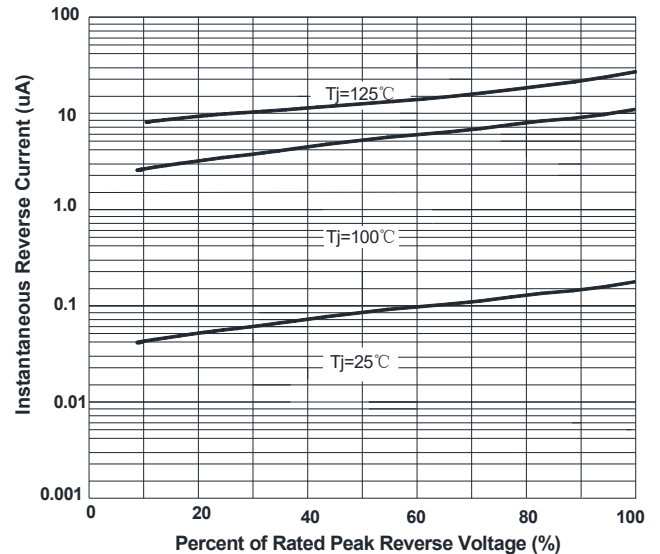
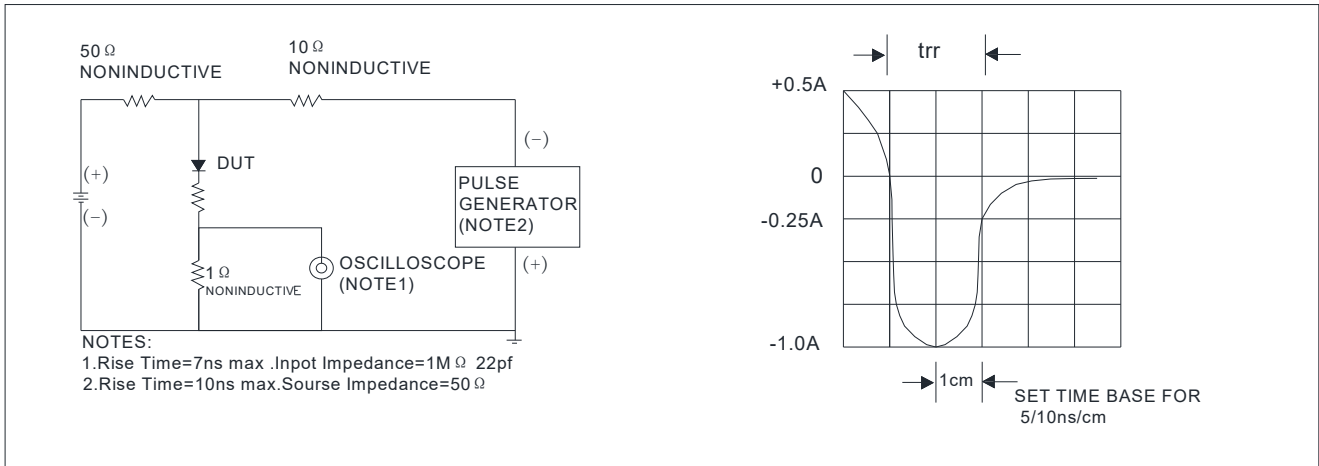
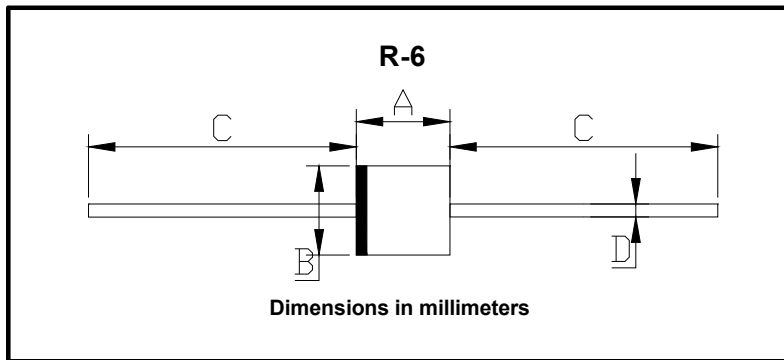


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



## ■ 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



## FR601 THRU FR607

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