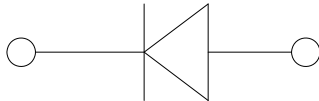
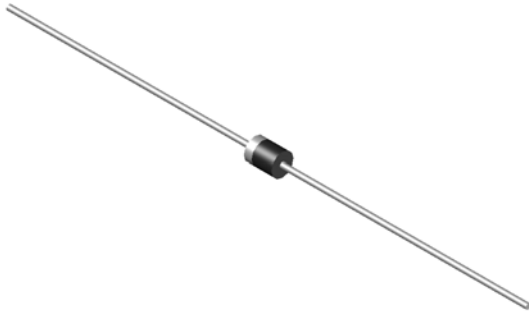


## Fast Recovery Rectifier



### Features

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

### Mechanical Data

- **Package:** R-1  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes cathode end

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

PARAMETER	SYMBOL	UNIT	1F1	1F2	1F3	1F4	1F5	1F6	1F7
Device marking code			1F1	1F2	1F3	1F4	1F5	1F6	1F7
Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Average Forward Current @60Hz sine wave, Resistance load, T <sub>a</sub> =45°C	I <sub>F(AV)</sub>	A	1.0						
Surge(Non-repetitive)Forward Current @60Hz Half-sine wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	30						
Storage Temperature	T <sub>stg</sub>	°C	-55 ~+150						
Junction Temperature	T <sub>j</sub>	°C	-55~+125						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	1F1	1F2	1F3	1F4	1F5	1F6	1F7
Maximum instantaneous forward voltage drop per diode	V <sub>FM</sub>	V	I <sub>FM</sub> =1.0A	1.3						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM1</sub>	μA	T <sub>a</sub> =25°C	2.5						
	I <sub>RRM2</sub>		T <sub>a</sub> =100°C	100						
Reverse Recovery time	t <sub>r</sub>	ns	I <sub>F</sub> =0.5A I <sub>R</sub> =1A I <sub>RR</sub> =0.25A	150			250	500		
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	20						

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

PARAMETER	SYMBOL	UNIT	1F1	1F2	1F3	1F4	1F5	1F6	1F7
Thermal Resistance(Typical)	R <sub>θJ-A</sub>	°C/W	85						



# 1F1 THRU 1F7

## Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1F1~1F7	D1	Approximate 0.19	5000	5000	50000	Tape
1F1~1F7	C1	Approximate 0.19	1000	1000	50000	Bulk

## Characteristics (Typical)

FIG.1: Io-Ta Curve

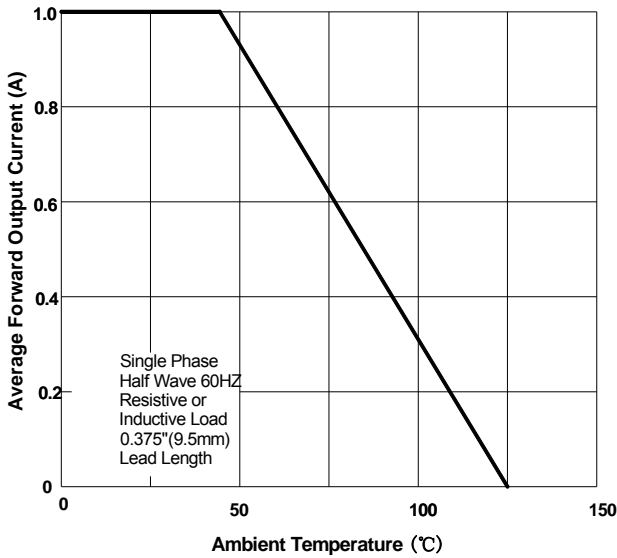


FIG.2: Surge Forward Current Capability

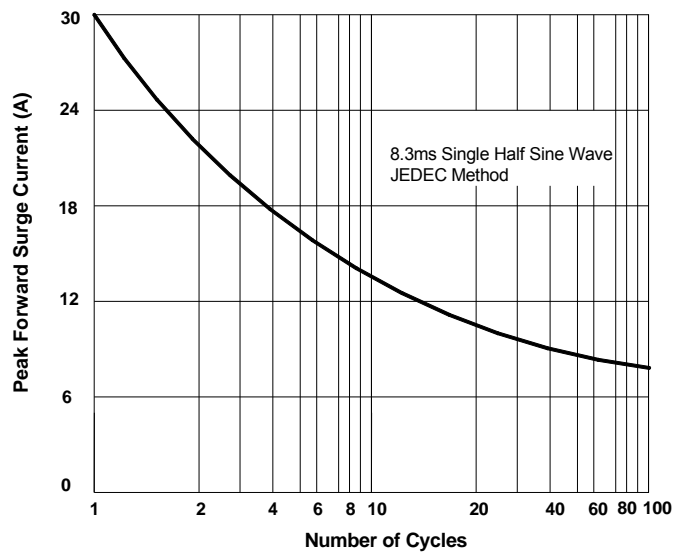


FIG.3: Forward Voltage

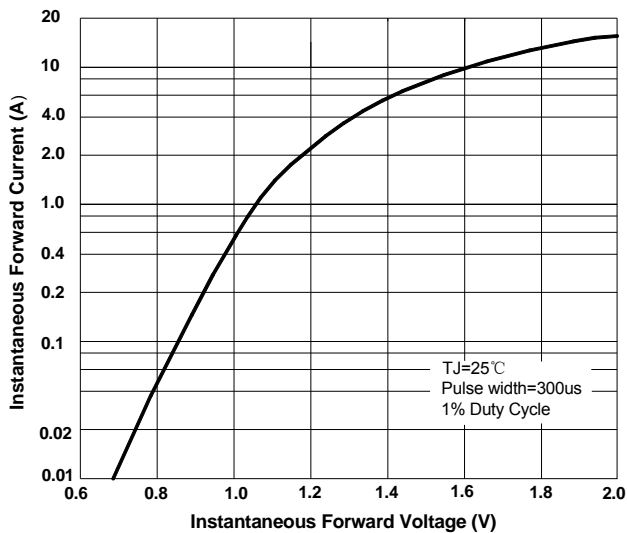
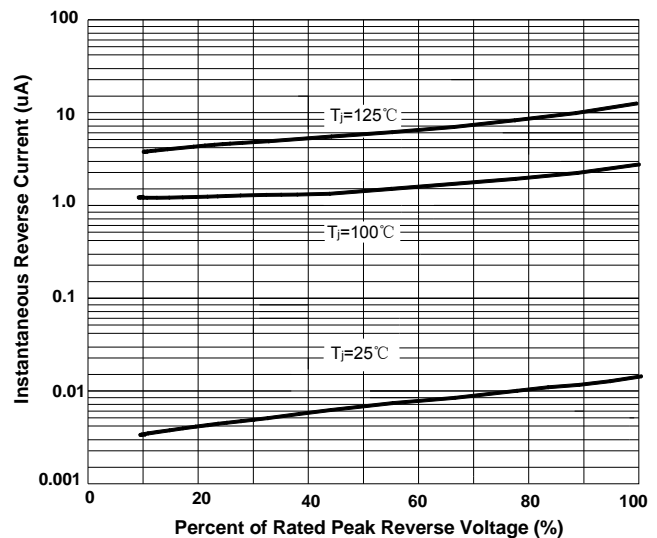


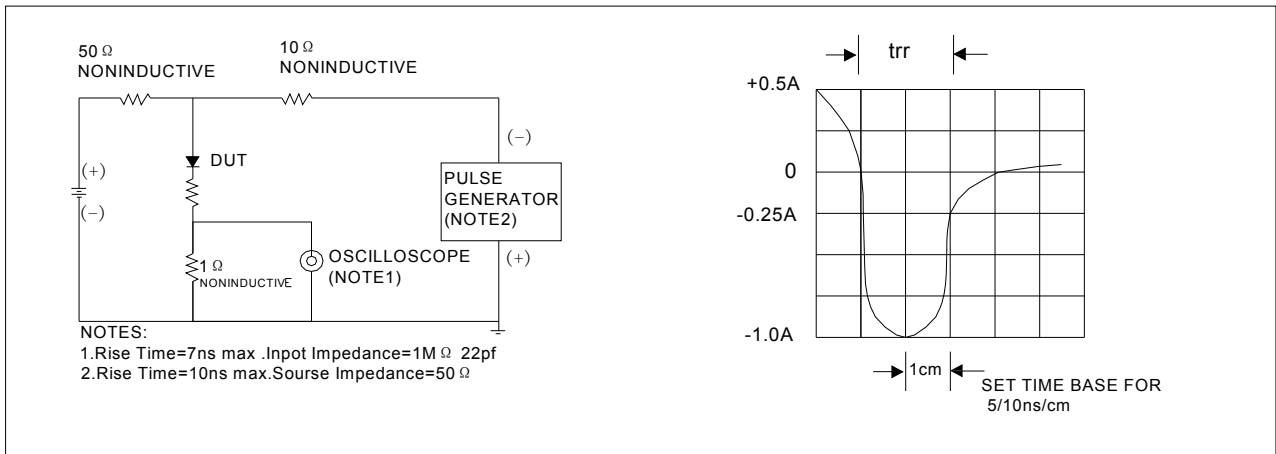
FIG.4: Typical Reverse Characteristics



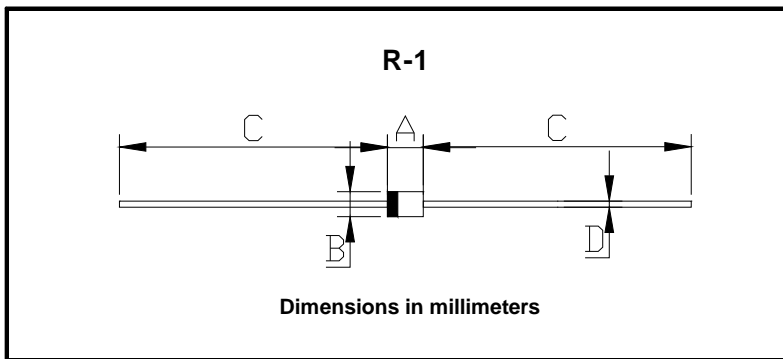


# 1F1 THRU 1F7

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



## ■ Outline Dimensions



R-1		
Dim	Min	Max
A	3.00	3.30
B	2.00	2.70
C	25.4	/
D	0.53	0.64



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