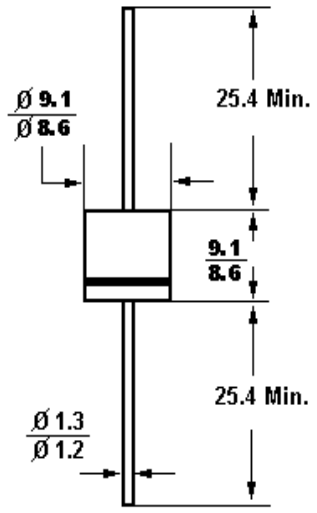
FR601 THRU FR607

FAST RECOVERY RECTIFIERS
Voltage – 50 to 1000 Volts
Current – 6.0 Ampere



Dimnsions in mm

Features

- Low forward voltage drop
- Low leakage
- High current capability
- High reliability
- High current surge
- Fast switching

Mechanical Data

- **Case:** Molded plastic.
- **Epoxy:** UL 94V-0 rate flame retardant.
- **Terminals:** MIL-STD-202E, method 208C guaranteed.
- **Polarity:** Color band denotes cathode end.
- **Mounting Position:** Any.

Absolute Maximum Ratings and Characteristics @ 25^{0}C unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

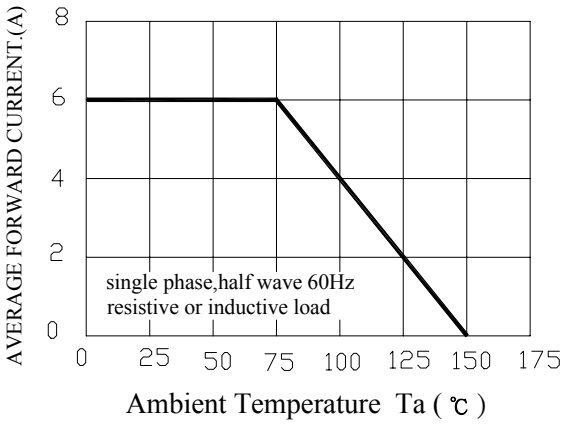
	Symbols	FR601	FR602	FR603	FR604	FR605	FR606	FR607	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average forward rectified current at T_A = 75 ^{O}C	$I_{(AV)}$	6.0							Amps
Peak forward surge current 8.3ms single half sine-wave, superimposed on rated load (JEDEC method)	I_{FSM}	300							Amps
Maximum instantaneous forward voltage at I_{FM} = 6 A ,	V_F	1.3							Volts
Maximum DC reverse current T_A = 25 ^{O}C at rated DC blocking voltage T_L = 55^{O}C	I_R	10 150							μA
Maximum reverse recovery time (Note 1)	T_{rr}	150				250	500		nS
Typical junction capacitance (Note 2)	C_J	150							pF
Operating and storage temperature range	T_J ,T_S	-65 to +150							^{O}C

1) Reverse recovery test conditions: I_F = 0.5A, I_R = 1A, I_{rr} = 0.25A

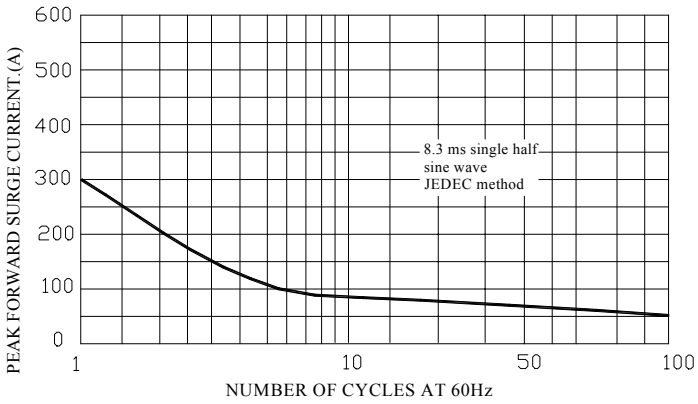
2) Measured at 1MH$_Z$ and applied reverse voltage of 4volts D.C.

FR601 THRU FR607

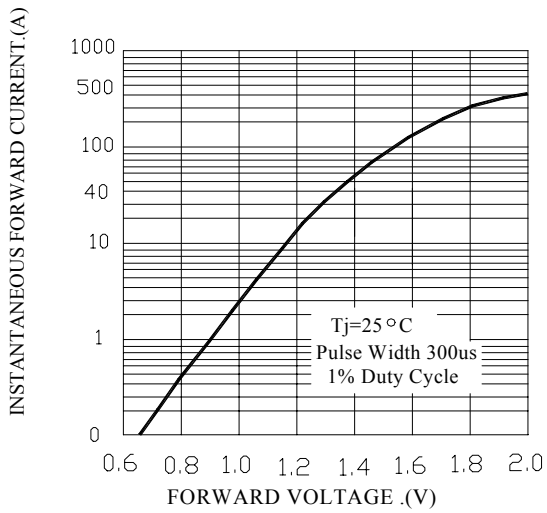
TYPICAL FORWARD CURRENT
DERATING CURVE



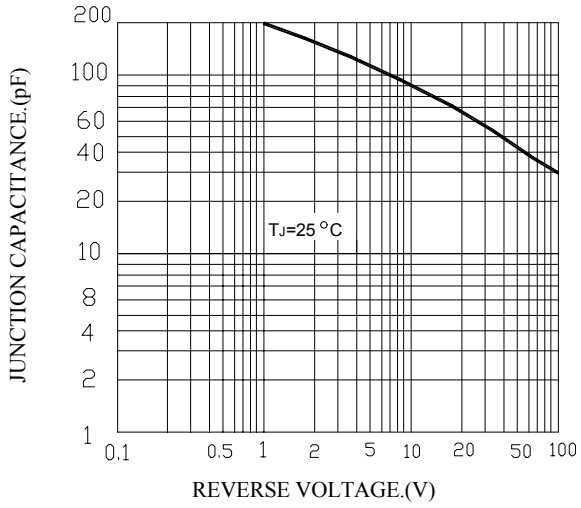
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT



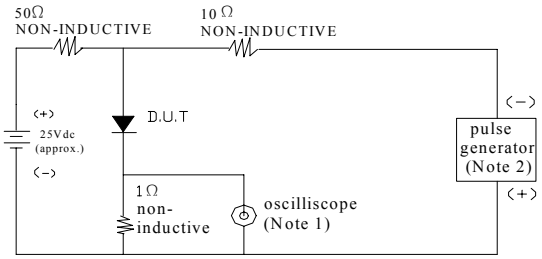
TYPICAL FORWARD CHARACTERISTICS



TYPICAL JUNCTION CAPACITANCE



TEST CIRCUIT DIAGRAM AND REVERSE
RECOVERY TIME CHARACTERISTICS



Notes: 1.Rise time =2ns max. Input impedance=1megohm.22pF
2. Rise time=10ns max. Source impedance=50ohms.