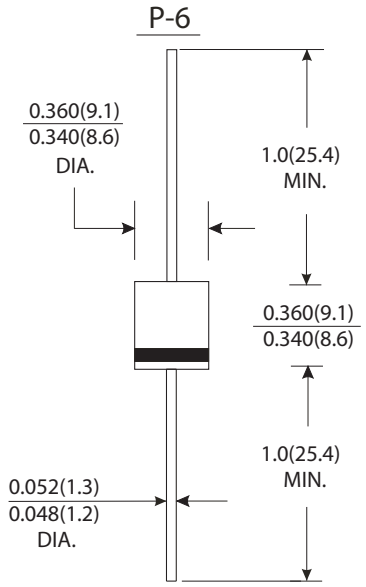
DEC

FR601 THRU FR607

CURRENT 6.0 Amperes
VOLTAGE 50 to 1000 Volts

Features

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



Dimensions in inches and (millimeters)

Mechanical Data

· Case : P-6 molded plastic body
· Terminals : Plated axial lead solderable per MIL-STD-750, method 2026
· Polarity : Color band denotes cathode end
· Mounting Position : Any
· Weight : 0.074 ounce, 2.08 gram

Maximum Ratings And Electrical Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

	Symbols	FR 601	FR 602	FR 603	FR 604	FR 605	FR 606	FR 607	Units
Maximum recurrent 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 0.375"(9.5mm) lead length T_A=75℃	$I_{(AV)}$	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 6.0A	V_F	1.3							Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	10							μA
Maximum full load reverse current full cycle average. 0.375"(9.5mm) lead length at T_L=55℃		150							
Maximum reverse recovery time (Note 1)	Trr	150				250	500		ns
Typical junction capacitance (Note 2)	C_J	150							pF
Operating junction and storage temperature range	T_J T_{STG}	-65 to +150							℃

Notes:
(1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
(2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

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RATINGS AND CHARACTERISTIC CURVES FR601 THRU FR607

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

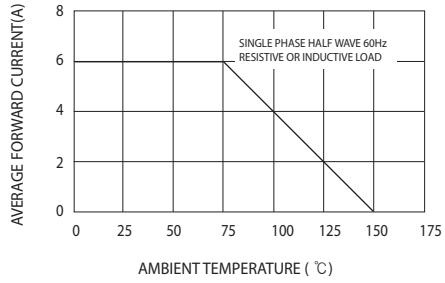


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

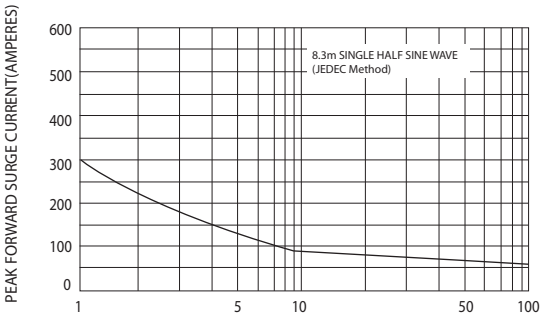


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

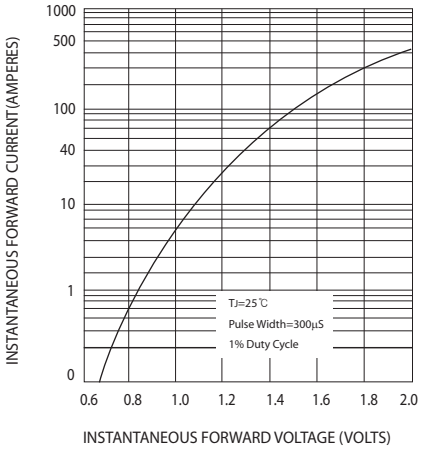


FIG.4-TYPICAL JUNCTION CAPACITANCE

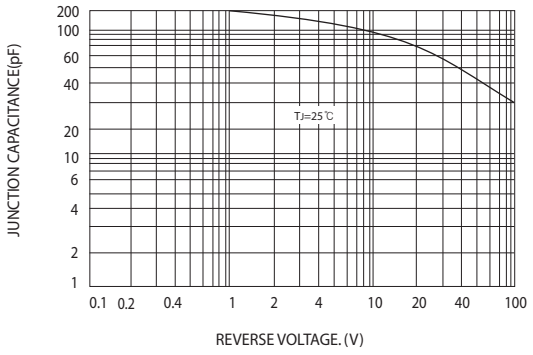
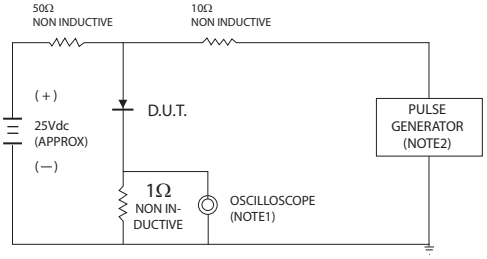
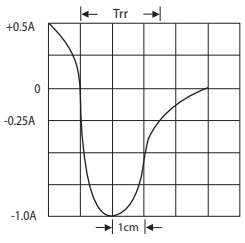


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1.Rise Time=7ns max. input impedance=1 megohm 22pF
2.Rise Time=10ns max. source impedance =50 ohms



SET TIME BASE FOR 50/100 ns/cm