

III. Fast / Ultra Fast / Super Fast Recovery Rectifier

6.0A Fast Recovery Rectifier FR601~FR607

(Package: R-6)

<p>FEATURES</p> <ul style="list-style-type: none"> • The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 • Fast switching for high efficiency • Low reverse leakage • High forward surge current capability • High temperature soldering guaranteed : 250 /10 seconds, 0.375"(9.5mm) lead length, 5 lbs. (2.3 kg) tension <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case : R-6 molded plastic body • Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026 • Polarity : Color band denotes cathode end • Mounting Position : Any • Weight : 0.072 ounce, 2.05 grams 	<p>Case: R-6 Dimensions in inches and (millimeters)</p>
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Ratings & Electrical Characteristics

Characteristic	Symbol	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 0.375" (9.5mm) lead length at $T_a = 75$	I_o	6.0							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300.0							Amps
Maximum instantaneous forward voltage at 6.0A	V_F	1.3							Volts
Maximum DC reverse current $T_a = 25$ at rated DC blocking voltage $T_a = 100$	I_R	10.0 200.0							μA
Maximum reverse recovery time (Note 1)	T_{rr}	150				250	500		ns
Typical junction capacitance (Note 2)	C_j	150.0							PF
Typical thermal resistance (Note 3)	R_{th-JA}	10.0							/ W
Operating junction and storage temperature range	T_j, T_{stg}	-65 to +150							

Note :

1. Reverse recovery condition $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$
2. Measured at 1MHz and applied reverse voltage of 4.0 volts D.C.
3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length P.C.B. mounted

Ratings and Characteristic Curves of FR601~FR607

