

# Digital Circuits

## RAY I and II Series TTL

Type <sup>1</sup> Number	Description	Fanout Function	TYPICAL CHARACTERISTICS			Available Packages			
			Tpd (ns) or Toggle Rate (Min)	Avg. Pwr. Function (mW) 50% Duty	DC Noise Margin (V)	14 Pin			
						CJ	CK	D	DC
RF30	Single phase SRT flip-flop	15	15 MHz	30	+1.1, -1.5	X	X	X	X
RF31	Single phase SRT flip-flop	7	15 MHz	30	+1.1, -1.5	X	X	X	X
RF32	J-K flip-flop (AND inputs)	12	15 MHz	30	+1.1, -1.5	X	X	X	X
RF33	J-K flip-flop (AND inputs)	6	15 MHz	30	+1.1, -1.5	X	X	X	X
RF50	J-K flip-flop (AND inputs)	15	20 MHz	50	+1.1, -1.5	X	X	X	X
RF51	J-K flip-flop (AND inputs)	7	20 MHz	50	+1.1, -1.5	X	X	X	X
RF52	F-K flip-flop (AND inputs)	12	20 MHz	50	+1.1, -1.5	X	X	X	X
RF53	J-K flip-flop (AND inputs)	6	20 MHz	50	+1.1, -1.5	X	X	X	X
RF60	J-K flip-flop (OR inputs)	15	20 MHz	55	+1.1, -1.5	X	X	X	X
RF61	J-K flip-flop (OR inputs)	7	20 MHz	55	+1.1, -1.5	X	X	X	X
RF62	J-K flip-flop (OR inputs)	12	20 MHz	55	+1.1, -1.5	X	X	X	X
RF63	J-K flip-flop (OR inputs)	6	20 MHz	55	+1.1, -1.5	X	X	X	X
RF100	Dual J-K flip-flop (separate clocks)	11	35 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF101	Dual J-K flip-flop (separate clocks)	6	35 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF102	Dual J-K flip-flop (separate clocks)	9	35 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF103	Dual J-K flip-flop (separate clocks)	5	35 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF110	Dual J-K flip-flop (common clock)	11	35 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF111	Dual J-K flip-flop (common clock)	6	35 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF112	Dual J-K flip-flop (common clock)	9	35 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF113	Dual J-K flip-flop (common clock)	5	35 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF120	Dual J-K flip-flop (separate clocks)	11	50 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF121	Dual J-K flip-flop (separate clocks)	6	50 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF122	Dual J-K flip-flop (separate clocks)	9	50 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF123	Dual J-K flip-flop (separate clocks)	5	50 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF130	Dual J-K flip-flop (common clock)	11	50 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF131	Dual J-K flip-flop (common clock)	6	50 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF132	Dual J-K flip-flop (common clock)	9	50 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF133	Dual J-K flip-flop (common clock)	5	50 MHz	55/flip-flop	+1.0, -1.5	X	X	X	X
RF200	J-K flip-flop (AND inputs)	11	50 MHz	55	+1.0, -1.5	X	X	X	X
RF201	J-K flip-flop (AND inputs)	6	50 MHz	55	+1.0, -1.5	X	X	X	X
RF202	J-K flip-flop (AND inputs)	9	50 MHz	55	+1.0, -1.5	X	X	X	X
RF203	J-K flip-flop (AND inputs)	5	50 MHz	55	+1.0, -1.5	X	X	X	X
RF210	J-K flip-flop (OR inputs)	11	50 MHz	55	+1.0, -1.5	X	X	X	X
RF211	J-K flip-flop (OR inputs)	6	50 MHz	55	+1.0, -1.5	X	X	X	X
RF212	J-K flip-flop (OR inputs)	9	50 MHz	55	+1.0, -1.5	X	X	X	X
RF213	J-K flip-flop (OR inputs)	5	50 MHz	55	+1.0, -1.5	X	X	X	X
RF250	J-K flip-flop (AND inputs)	11	30 MHz	50	+1.1, -1.5	X	X	X	X
RF251	J-K flip-flop (AND inputs)	6	30 MHz	50	+1.1, -1.5	X	X	X	X
RF252	J-K flip-flop (AND inputs)	9	30 MHz	50	+1.1, -1.5	X	X	X	X
RF253	J-K flip-flop (AND inputs)	5	30 MHz	50	+1.1, -1.5	X	X	X	X
RF260	J-K flip-flop (OR inputs)	11	30 MHz	55	+1.1, -1.5	X	X	X	X
RF261	J-K flip-flop (OR inputs)	6	30 MHz	55	+1.1, -1.5	X	X	X	X
RF262	J-K flip-flop (OR inputs)	9	30 MHz	55	+1.1, -1.5	X	X	X	X
RF263	J-K flip-flop (OR inputs)	5	30 MHz	55	+1.1, -1.5	X	X	X	X

1. Operating temperature range, final digits 0 or 1: -55°C to +125°C; final digits 2 or 3: 0°C to +70°C.