

NEC**ASIC PRODUCTS**

T-42-01

ECL-2, -3, -3A, -3B, -4, -4A

Device	Integration (Gate)	Delay Time			Number of Buffers		Power Dissipation
		Gate (ns)	Output Buffer (ns)	Input Buffer (ns)	Output	Input	
ECL-2 (100K) (Note 1)							
μPD6301 (Note 4)	300	0.5	0.8	0.5	28	56	5.4 mW
μPD6310 (Note 5)	1200	0.7	1	0.6	48	88	1.9 mW
μPD6320 (Note 5)	2000	0.7	1	0.6	48	108	
ECL-3 (10KH) (Note 2)							
μPD6311 (Note 5)	1200	1	1.7	1	48	88	1.1 mW
μPD6321 (Note 5)	2000	1	1.7	1	48	108	
μPD6330 (Note 5)	3000	1	1.7	1	80	180	
ECL-3A (100K, 10KH) (Note 1) (Note 2)							
μPD6340 (Note 6)	4000	0.7	1.6	0.7	72	156	1.9 mW
μPD6350 (Note 6)	5000	0.7	1.6	0.7	80	172	
ECL-3B (100K, 10KH, TTL) (Note 3)							
μPB6323 (Note 6)	2400	0.7	1.6 (ECL) 4.8 (TTL)	0.7 (ECL) 0.9 (TTL)	55	120	1.9 mW
μPB6341 (Note 6)	4000	0.7	1.6 (ECL) 4.8 (TTL)	0.7 (ECL) 0.9 (TTL)	72	156	
μPB6351 (Note 6)	5000	0.7	1.6 (ECL) 4.8 (TTL)	0.7 (ECL) 0.9 (TTL)	80	172	
ECL-4 (100K, 10KH) (Note 1) (Note 2)							
μPB6303 (Note 10)	600	0.22	0.77	0.23	48	88	3.2 mW/gate
μPB6312 (Note 10)	1200	0.22	0.77	0.23	48	108	
ECL-4A (100K, 10KH, TTL) (Note 3)							
μPB63020 (Note 10)	2400	.09	0.8 (ECL) 4.0 (TTL)	0.3 (ECL) 0.7 (TTL)	60	102	2.7 mW/gate
μPB63040 (Note 10)	4000	.09	0.8 (ECL) 4.0 (TTL)	0.3 (ECL) 0.7 (TTL)	84	140	
μPB63060 (Note 10)	6000	.09	0.8 (ECL) 4.0 (TTL)	0.3 (ECL) 0.7 (TTL)	90	174	
μPB63080 (Note 10)	8000	.09	0.8 (ECL) 4.0 (TTL)	0.3 (ECL) 0.7 (TTL)	108	200	
μPB63100 (Note 10)	10000	.09	0.8 (ECL) 4.0 (TTL)	0.3 (ECL) 0.7 (TTL)	120	236	

- Notes:**
- (1) Power source: $-4.5 \text{ V} \pm 10\%$ (100K)
 - (2) Power source: $-5.2 \text{ V} \pm 10\%$ (10KH)
 - (3) Power source: $-4.5 \text{ V} \pm 0.3 \text{ V}$ (100K); $-5.2 \text{ V} \pm 5\%$ (10KH); $+5 \text{ V} \pm 5\%$ (TTL)
 - (4) Number of macros: 55
 - (5) Number of macros: 70
 - (6) Number of macros: 72
 - (7) Ambient temperature: 0 to 70°C
 - (8) Technology: advanced bipolar process
 - (9) Gate delay is under the loading of fan-out of 3 and wiring length of 3 mm, except ECL-4A: F/O = 1; L = 0 mm.
 - (10) Number of macros: 93; 173 (ECL-4A)

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