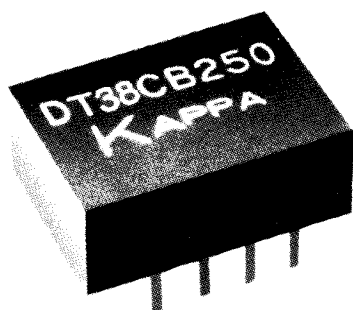


SERIES DT38 TTL SCHOTTKY • 3 INDEPENDENT DELAYS

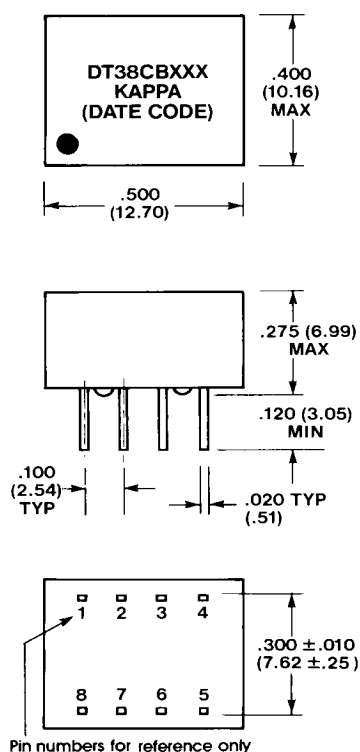
TRIPLE DELAY LINE (8-PIN)



FEATURES

- 8-Pin DIL Package
- 3 independent equal delays
- TTL Schottky interfaced
- Delay times from 5-250 ns

MARKINGS AND DIMENSIONS,
in (mm)



RECOMMENDED OPERATING CONDITIONS

	MIN	TYP	MAX	UNIT
V _{CC} Supply Voltage	4.75	5.00	5.25	V
V _{IH} High-Level Input Voltage	2.0			V
V _{IL} Low-Level Input Voltage			0.8	V
I _{IK} Input Clamp Current			-18	mA
I _{OH} High-Level Output Current			-1.0	mA
I _{OL} Low-Level Output Current			20	mA
T _A Operating Free-Air Temperature	0	+25	+70	°C

DC ELECTRICAL CHARACTERISTICS

TEST CONDITIONS

V _{OH} High-Level Output Voltage	V _{CC} = min, V _{IH} = min, I _{OH} = max	2.7	3.4		V
V _{OL} Low-Level Output Voltage	V _{CC} = min, V _{IL} = max, I _{OL} = max			0.5	V
V _{IK} Input Clamp Voltage	V _{CC} = min, I _I = I _{IK}			-1.2	V
I _{IH} High-Level Input Current	V _{CC} = max, V _{IN} = 2.7V			50	μA
	V _{CC} = max, V _{IN} = 5.25V			1.0	mA
I _{IL} Low-Level Input Current	V _{CC} = max, V _{IN} = 0.5V			-2	mA
I _{OS} Short Circuit Output Current	V _{CC} = max, V _{OUT} = 0, one output at a time	-40		-100	mA
I _{CCH} High-Level Supply Current	V _{CC} = max, V _{IN} = OPEN			90	mA
I _{CCL} Low-Level Supply Current	V _{CC} = max, V _{IN} = 0			115	mA
N _H Fanout High-Level Output	V _{CC} = max, V _{OH} = 2.7V			20	TTL load
N _L Fanout Low-Level Output	V _{CC} = max, V _{OL} = 0.5V			10	TTL load

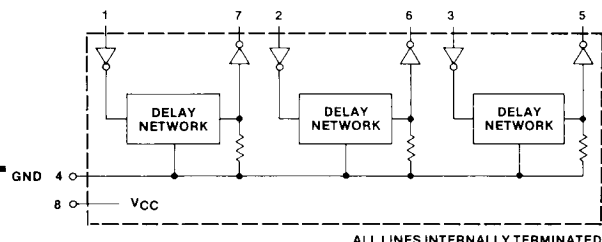
AC ELECTRICAL CHARACTERISTICS

T _{PLH} Low-to-High Level Delay Time	V _{CC} = T _{YP} , T _A = T _{YP} , E _{IN} = T _{YP} , T _W = min, d = max ⁽¹⁾⁽²⁾⁽⁶⁾	-5		+5	%
T _{PCC} V _{CC} Coefficient of Delay	V _{CC} = min-to-max, T _A = T _{YP} , E _{IN} = T _{YP} , T _W = min, d = max ⁽¹⁾⁽²⁾⁽⁴⁾⁽⁶⁾		-0.16		%/mV
T _{RO} Output Risetime	V _{CC} = T _{YP} , T _A = T _{YP} , E _{IN} = T _{YP} , T _W = min, d = max ⁽⁵⁾⁽⁶⁾		3	4	ns

INPUT PULSE TEST CONDITIONS

E _{IN} Pulse Voltage	3.1	3.2	3.3	V
T _{RI} Pulse Rise-Time			2.0	ns
T _W Pulse Width, of Total Delay	100			%
d Duty Cycle		33.3	50	%

PART NUMBER ⁽⁷⁾	Delay Time (ns) ^{(1) (3)}	Notes:
DT38CB050	5	1. Delays measured at 1.5V level on leading edge only.
DT38CB100	10	2. Delay tolerances: ±5% or ±2 ns, whichever is greater, referenced from input and guaranteed only under the following test conditions: V _{CC} = T _{YP} , T _A = T _{YP} , E _{IN} = T _{YP} , T _{RI} = max, T _W = min, P _{RR} = 1MHz (or d/tw, whichever is less), R _L 1 megohm and C _L 2pf.
DT38CB150	15	3. Temperature coefficient of delay will vary, depending upon total delay, according to the formula: T _{PTA} = (100 + (25,000/T _{PLH})).
DT38CB200	20	4. Delay will vary about 4% for every 5% change in supply voltage.
DT38CB250	25	5. Risetime measured from 0.75V to 2.4V level.
DT38CB500	50	6. Measured with no loads on taps.
DT38CB750	75	7. Other delays also available upon request.
DT38CB101	100	
DT38CB251	250	
DT38CB501	500	



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