



Switching Characteristics Over the Operating Range (continued)

Param.	Description	Test Load	FCT821CT/FCT823CT/FCT825CT				Unit	Fig. No. ^[14]
			Military		Commercial			
			Min. ^[13]	Max.	Min. ^[13]	Max.		
t _{PLH} t _{PHL}	Propagation Delay CP to Y (OE=LOW)	C _L =50 pF R _L =500Ω		7.0		6.0	ns	1, 5
t _{PLH} t _{PHL}	Propagation Delay CP to Y (OE=LOW) ^[6]	C _L =300 pF R _L =500Ω		13.5		12.5	ns	1, 5
t _{PLH}	Propagation Delay CLR to Y ₁	C _L =50 pF R _L =500Ω		8.5		8.0	ns	1, 5
t _{PZH} t _{PZL}	Output Enable Time OE to Y	C _L =50 pF R _L =500Ω		8.0		7.0	ns	1, 7, 8
t _{PZH} t _{PZL}	Output Enable Time OE to Y ^[6]	C _L =300 pF R _L =500Ω		12.5		12.5	ns	1, 7, 8
t _{PHZ} t _{PHL}	Output Disable Time OE to Y ^[6]	C _L =5 pF R _L =500Ω		6.2		6.0	ns	1, 7, 8
t _{PHZ} t _{PHL}	Output Disable Time OE to Y	C _L =50 pF R _L =500Ω		6.5		6.5	ns	1, 7, 8
t _{SU}	Data to CP Set-Up Time	C _L =50 pF R _L =500Ω	3.0		3.0		ns	4
t _H	Data to CP Hold Time		1.5		1.5		ns	4
t _{SU}	Enable EN to CP Set-Up Time		3.0		3.0		ns	4
t _H	Enable EN to CP Hold Time		0.0		0.0		ns	4
t _{REM}	Clear Recovery Time CLR to CP		6.0		6.0		ns	6
t _w	Clock Pulse Width		6.0		6.0		ns	5
t _w	CLR Pulse Width LOW		6.0		6.0		ns	5



CY54/74FCT821T
CY54/74FCT823T
CY54/74FCT825T

Ordering Information – FCT821T

Speed (ns)	Ordering Code	Package Name	Package Type	Operating Range
6.3	CY74FCT821CTPC	P13/13A	24-Lead (300-Mil) Molded DIP	Commercial
	CY74FCT821CTQC	Q13	24-Lead (150-Mil) QSOP	
	CY74FCT821CTSOC	S13	24-Lead (300-Mil) Molded SOIC	
7.3	CY54FCT821CTDMB	D14	24-Lead (300-Mil) CerDIP	Military
	CY54FCT821CTLMB	L64	28-Square Leadless Chip Carrier	
7.5	CY74FCT821BTPC	P13/13A	24-Lead (300-Mil) Molded DIP	Commercial
	CY74FCT821BTQC	Q13	24-Lead (150-Mil) QSOP	
	CY74FCT821BTSOC	S13	24-Lead (300-Mil) Molded SOIC	
8.0	CY54FCT821BTDMB	D14	24-Lead (300-Mil) CerDIP	Military
	CY54FCT821BTLMB	L64	28-Square Leadless Chip Carrier	
10.0	CY74FCT821ATPC	P13/13A	24-Lead (300-Mil) Molded DIP	Commercial
	CY74FCT821ATQC	Q13	24-Lead (150-Mil) QSOP	
	CY74FCT821ATSOC	S13	24-Lead (300-Mil) Molded SOIC	
11.0	CY54FCT821ATDMB	D14	24-Lead (300-Mil) CerDIP	Military
	CY54FCT821ATLMB	L64	28-Square Leadless Chip Carrier	

Ordering Information – FCT823T

Speed (ns)	Ordering Code	Package Name	Package Type	Operating Range
6.3	CY74FCT823CTPC	P13/13A	24-Lead (300-Mil) Molded DIP	Commercial
	CY74FCT823CTQC	Q13	24-Lead (150-Mil) QSOP	
	CY74FCT823CTSOC	S13	24-Lead (300-Mil) Molded SOIC	
7.3	CY54FCT823CTDMB	D14	24-Lead (300-Mil) CerDIP	Military
	CY54FCT823CTLMB	L64	28-Square Leadless Chip Carrier	
7.5	CY74FCT823BTPC	P13/13A	24-Lead (300-Mil) Molded DIP	Commercial
	CY74FCT823BTQC	Q13	24-Lead (150-Mil) QSOP	
	CY74FCT823BTSOC	S13	24-Lead (300-Mil) Molded SOIC	
8.0	CY54FCT823BTDMB	D14	24-Lead (300-Mil) CerDIP	Military
	CY54FCT823BTLMB	L64	28-Square Leadless Chip Carrier	
10.0	CY74FCT823ATPC	P13/13A	24-Lead (300-Mil) Molded DIP	Commercial
	CY74FCT823ATQC	Q13	24-Lead (150-Mil) QSOP	
	CY74FCT823ATSOC	S13	24-Lead (300-Mil) Molded SOIC	
11.0	CY54FCT823ATDMB	D14	24-Lead (300-Mil) CerDIP	Military
	CY54FCT823ATLMB	L64	28-Square Leadless Chip Carrier	



CY54/74FCT821T
CY54/74FCT823T
CY54/74FCT825T

Ordering Information—FCT825T

Speed (ns)	Ordering Code	Package Name	Package Type	Operating Range
5.4	CY74FCT825CTPC	P13/13A	24-Lead (300-Mil) Molded DIP	Commercial
	CY74FCT825CTQC	Q13	24-Lead (150-Mil) QSOP	
	CY74FCT825CTSOC	S13	24-Lead (300-Mil) Molded SOIC	
6.0	CY54FCT825CTDMB	D14	24-Lead (300-Mil) CerDIP	Military
	CY54FCT825CTLMB	L64	28-Square Leadless Chip Carrier	
6.3	CY74FCT825BTPC	P13/13A	24-Lead (300-Mil) Molded DIP	Commercial
	CY74FCT825BTQC	Q13	24-Lead (150-Mil) QSOP	
	CY74FCT825BTSOC	S13	24-Lead (300-Mil) Molded SOIC	
7.7	CY54FCT825BTDMB	D14	24-Lead (300-Mil) CerDIP	Military
	CY54FCT825BTLMB	L64	28-Square Leadless Chip Carrier	
9.0	CY74FCT825ATPC	P13/13A	24-Lead (300-Mil) Molded DIP	Commercial
	CY74FCT825ATQC	Q13	24-Lead (150-Mil) QSOP	
	CY74FCT825ATSOC	S13	24-Lead (300-Mil) Molded SOIC	
11.0	CY54FCT825ATDMB	D14	24-Lead (300-Mil) CerDIP	Military
	CY54FCT825ATLMB	L64	28-Square Leadless Chip Carrier	

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