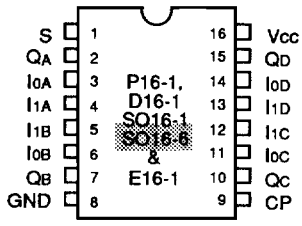
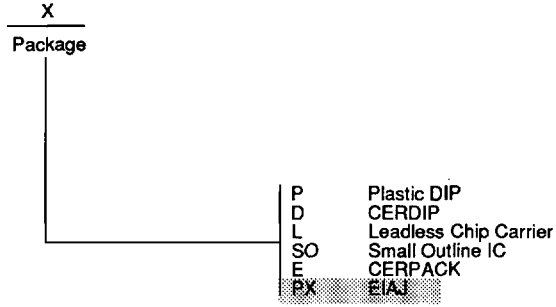
PIN CONFIGURATION



DIP/SOIC/EIAJ/CERPACK
TOP VIEW

ORDERING INFORMATION



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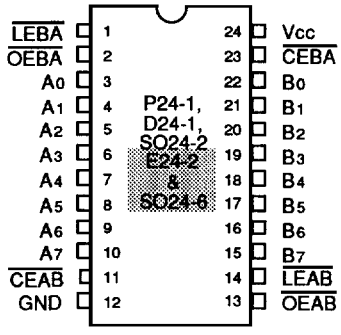
FEATURES:

- IDT54/74FCT543T equivalent to FAST™ speed
- **IDT54/74FCT543AT 25% faster than FAST™**
- **IDT54/74FCT543CT 40% faster than FAST™**

PIN CONFIGURATIONS



DIP/SOIC/CERPACK/EIAJ
TOP VIEW

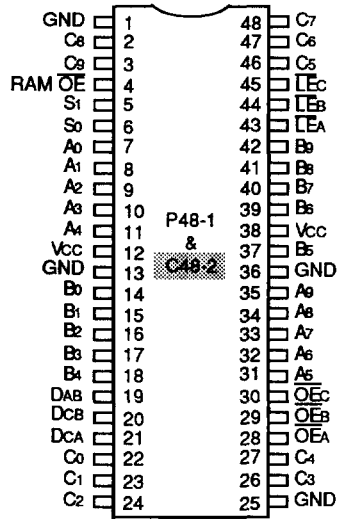
SWITCHING CHARACTERISTICS OVER OPERATING RANGE

Symbol	Parameter	Condition[1]	IDT54/74FCT543T				IDT54/74FCT543AT				IDT54/74FCT543CT				Unit
			Com'l.		Mil.		Com'l.		Mil.		Com'l.		Mil.		
			Min.[2]	Max.	Min.[2]	Max.	Min.[2]	Max.	Min.[2]	Max.	Min.[2]	Max.	Min.[2]	Max.	
tPLH tPHL	Propagation Delay Transparent Mode An to Bn or Bn to An	CL = 50pF RL = 500Ω	2.5	8.5	2.5	10.0	2.5	6.5	2.5	7.5	2.5	5.3	2.5	6.1	ns
tPLH tPHL	Propagation Delay $\overline{LEBA}$ to An, $\overline{LEAB}$ to Bn		2.5	12.5	2.5	14.0	2.5	8.0	2.5	9.0	2.5	7.0	2.5	8.0	ns
tPZH tPZL	Output Enable Time $\overline{OEBA}$ or $\overline{OEAB}$ to An or Bn $\overline{CEBA}$ or $\overline{CEAB}$ to An or Bn		2.0	12.0	2.0	14.0	2.0	9.0	2.0	10.0	2.0	8.0	2.0	9.0	ns
tPHZ tPLZ	Output Disable Time $\overline{OEBA}$ or $\overline{OEAB}$ to An or Bn $\overline{CEBA}$ or $\overline{CEAB}$ to An or Bn		2.0	9.0	2.0	13.0	2.0	7.5	2.0	8.5	2.0	6.5	2.0	7.5	ns
tSU	Set-up Time, HIGH or LOW An or Bn to $\overline{LEBA}$ or $\overline{LEAB}$		3.0	—	3.0	—	2.0	—	2.0	—	2.0	—	2.0	—	ns
tH	Hold Time, HIGH or LOW An or Bn to $\overline{LEBA}$ or $\overline{LEAB}$		2.0	—	2.0	—	2.0	—	2.0	—	2.0	—	2.0	—	ns
tW	$\overline{LEBA}$ or $\overline{LEAB}$ Pulse Width LOW		5.0	—	5.0	—	5.0	—	5.0	—	5.0	—	5.0	—	ns

FEATURES:

- Available in plastic and sidebraze DIPs, and PLCC

PIN CONFIGURATION



DIP
TOP VIEW

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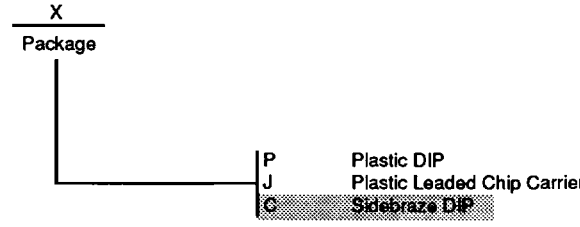
SWITCHING CHARACTERISTICS OVER OPERATING RANGE

Symbol	Parameter	Condition[1]	IDT49FCT804				IDT49FCT804A				IDT49FCT804C				Unit
			Com'l.		Mil.		Com'l.		Mil.		Com'l.		Mil.		
			Min.[2]	Max.	Min.[2]	Max.	Min.[2]	Max.	Min.[2]	Max.	Min.[2]	Max.	Min.[2]	Max.	
tPHL tPLH	Propagation Delay Port to Port	CL = 50pF RL = 500Ω	1.5	10.8	1.5	11.8	1.5	9.0	1.5	10.0	1.5	7.2	1.5	8.2	ns
tPHL tPLH	Propagation Delay $\overline{LE}$x to Port		1.5	14.4	1.5	15.8	1.5	12.0	1.5	13.0	1.5	8.7	1.5	10.2	ns
tPHL tPLH	Propagation Delay So or S1 to port		1.5	13.2	1.5	14.8	1.5	11.0	1.5	12.0	1.5	8.2	1.5	9.2	ns
tPHL tPLH	Propagation Delay So or S1 to RAM $\overline{OE}$		1.5	14.4	1.5	15.8	1.5	12.0	1.5	13.0	1.5	9.2	1.5	10.2	ns
tPHL tPLH	Propagation Delay Dxx to RAM $\overline{OE}$		1.5	10.8	1.5	11.8	1.5	9.0	1.5	10.0	1.5	7.2	1.5	8.2	ns
tPZL tPZH	Output Enable Time Dxx or $\overline{OE}$x to Port[3]		1.5	13.0	1.5	14.0	1.5	11.5	1.5	12.5	1.5	8.0	1.5	9.5	ns
tPLZ tPHZ	Output Disable Time Dxx or $\overline{OE}$x to Port[3]		1.5	10.0	1.5	11.0	1.5	9.0	1.5	10.0	1.5	7.7	1.5	9.2	ns

ORDERING INFORMATION



SWITCHING CHARACTERISTICS OVER OPERATING RANGE FOR FCT240[1,2]

Symbol	Parameter	Condition	54/74FCT240				54/74FCT240A				54/74FCT240C				Unit
			Com'l.		Mil.		Com'l.		Mil.		Com'l.		Mil.		
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
tPLH tPHL	Propagation Delay DN to $\overline{O}_N$	CL = 50pF RL = 500Ω	1.5	8.0	1.5	9.0	1.5	4.8	1.5	5.1	1.5	4.3	1.5	4.7	ns
tPZH tPZL	Output Enable Time		1.5	10.0	1.5	10.5	1.5	6.2	1.5	6.5	1.5	5.8	1.5	6.5	ns
tPHZ tPLZ	Output Disable Time		1.5	9.5	1.5	10.0	1.5	5.6	1.5	5.9	1.5	5.2	1.5	5.7	ns

FEATURES:

- IDT54/74FCT299 equivalent to FAST™ speed
- **IDT54/74FCT299A 25% faster than FAST™**
- **IDT54/74FCT299C 35% faster than FAST™**

DESCRIPTION:

The IDT54/74FCT299 and IDT54/74FCT299A/C are built using advanced CEMOS™, a dual-metal CMOS technology. The IDT54/74FCT299 and IDT54/74FCT299A/C are 8-input universal shift/storage registers with 3-state outputs.

SWITCHING CHARACTERISTICS OVER OPERATING RANGE

Symbol	Parameter	Condition[1]	IDT54/74FCT299				IDT54/74FCT299A				IDT54/74FCT299C				Unit
			Com'l.		Mil.		Com'l.		Mil.		Com'l.		Mil.		
			Min.[2]	Max.	Min.[2]	Max.	Min.[2]	Max.	Min.[2]	Max.	Min.[2]	Max.	Min.[2]	Max.	
tPLH tPHL	Propagation Delay CP to O_0 or Q_7	C_L = 50pF R_L = 500Ω	2.0	10.0	2.0	14.0	2.0	7.2	2.0	9.5	2.0	6.5	2.0	7.5	ns
tPLH tPHL	Propagation Delay CP to I/On		2.0	12.0	2.0	12.0	2.0	7.2	2.0	9.5	2.0	6.5	2.0	7.5	ns
tPHL	Propagation Delay $\overline{MR}$ to Q_0 or Q_7		2.0	10.0	2.0	10.5	2.0	7.2	2.0	9.5	2.0	6.5	2.0	7.5	ns
tPHL	Propagation Delay $\overline{MR}$ to I/On		2.0	15.0	2.0	15.0	2.0	8.7	2.0	11.5	2.0	6.5	2.0	7.5	ns
tPZH tPZL	Output Enable Time $\overline{OE}_n$ to I/On		1.5	11.0	1.5	15.0	1.5	6.5	1.5	7.5	1.5	6.5	1.5	7.5	ns
tPHZ tPLZ	Output Disable Time $\overline{OE}_n$ to I/On		1.5	7.0	1.5	9.0	1.5	6.0	1.5	6.5	1.5	6.0	1.5	6.5	ns
tSU	Set-up Time HIGH or LOW S_0 or S_1 to CP		7.5	—	7.5	—	3.5	—	4.0	—	3.5	—	4.0	—	ns
tH	Hold Time HIGH or LOW S_0 or S_1 to CP		1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	ns
tSU	Set-up Time HIGH or LOW I/On, DS_0 or DS_7 to CP		5.5	—	5.5	—	4.0	—	4.5	—	4.0	—	4.5	—	ns
tH	Hold Time HIGH or LOW I/On, DS_0 or DS_7 to CP		1.5	—	1.5	—	1.5	—	1.5	—	1.5	—	1.5	—	ns
tW	CP Pulse width HIGH or LOW		7.0	—	7.0	—	5.0	—	6.0	—	5.0	—	6.0	—	ns
tW	$\overline{MR}$ Pulse Width LOW		7.0	—	7.0	—	5.0	—	6.0	—	5.0	—	6.0	—	ns
tREM	Recovery Time $\overline{MR}$ to CP		7.0	—	7.0	—	5.0	—	6.0	—	5.0	—	6.0	—	ns

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ORDERING INFORMATION