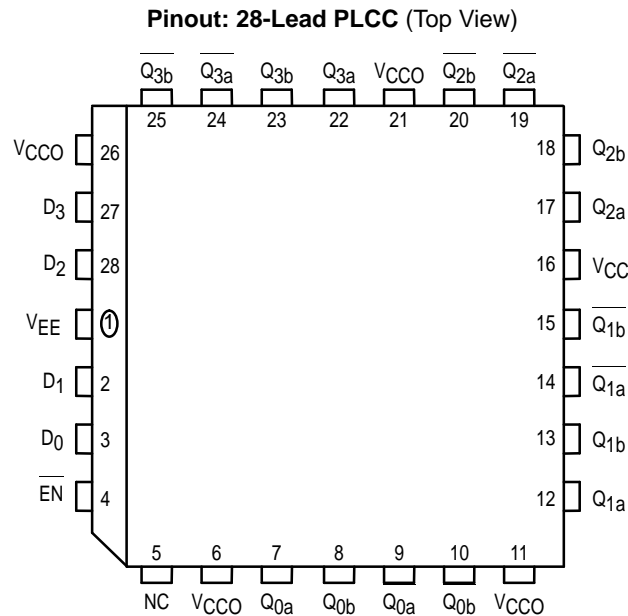


Quad Driver

The MC10E/100E112 is a quad driver with two pairs of OR/NOR outputs from each gate, and a common, buffered enable input. Using the data inputs the device can serve as an ECL memory address fan-out driver. Using just the enable input, the device serves as a clock driver, although the MC10E/100E111 is designed specifically for this purpose, and offers lower skew than the E112. For memory address driver applications where scan capabilities are required, please refer to the E212 device.

- 600ps Max. Propagation Delay
- Common Enable Input
- Extended 100E V<sub>EE</sub> Range of – 4.2V to – 5.46V
- 75kΩ Input Pulldown Resistors



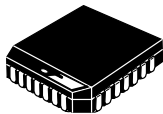
\* All V<sub>CC</sub> and V<sub>CCO</sub> pins are tied together on the die.

PIN NAMES

Pin	Function
D <sub>0</sub> – D <sub>3</sub>	Data Inputs
$\overline{\text{EN}}$	Enable Input
Q <sub>na</sub> , Q <sub>nb</sub>	True Outputs
$\overline{\text{Q}}_{na}$ , $\overline{\text{Q}}_{nb}$	Inverting Outputs

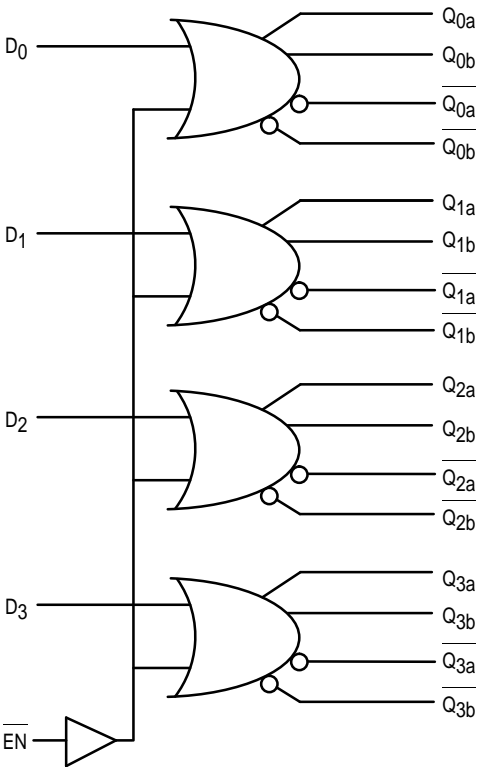
MC10E112  
MC100E112

QUAD DRIVER



FN SUFFIX  
PLASTIC PACKAGE  
CASE 776-02

LOGIC DIAGRAM



**DC CHARACTERISTICS** ( $V_{EE} = V_{EE(min)}$  to  $V_{EE(max)}$ ;  $V_{CC} = V_{CCO} = GND$ )

Symbol	Characteristic	0°C			25°C			85°C			Unit	Condition
		min	typ	max	min	typ	max	min	typ	max		
$I_{IH}$	Input HIGH Current $\frac{D}{EN}$			200 200			200 200			200 200	$\mu A$	
$I_{EE}$	Power Supply Current 10E 100E		47 47	56 56		47 47	56 56		47 54	56 65	mA	

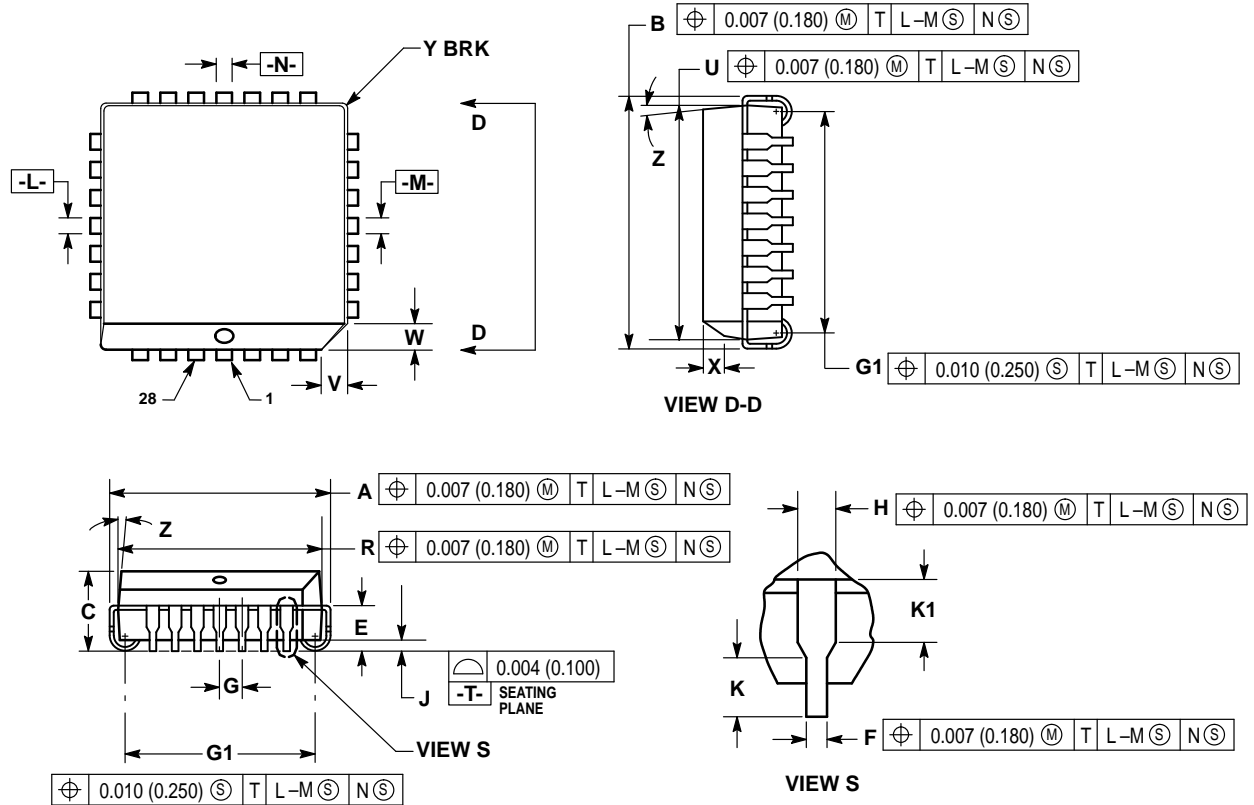
**AC CHARACTERISTICS** ( $V_{EE} = V_{EE(min)}$  to  $V_{EE(max)}$ ;  $V_{CC} = V_{CCO} = GND$ )

Symbol	Characteristic	0°C			25°C			85°C			Unit	Condition
		min	typ	max	min	typ	max	min	typ	max		
$t_{PLH}$ $t_{PHL}$	Propagation Delay to Output $\frac{D}{EN}$	200 275	400 450	600 675	200 275	400 450	600 675	200 275	400 450	600 675	ps	
$t_{SKEW}$	Within-Device Skew Dn to Qn, Qn Qna to Qnb		80 40			80 40			80 40		ps	1 2
$t_r$ $t_f$	Rise/Fall Times 20 - 80%	275	425	700	275	425	700	275	425	700	ps	

1. Within-device skew is defined as identical transitions on similar paths through a device.
2. Skew defined between common OR or common NOR outputs of a single gate.

## OUTLINE DIMENSIONS


FN SUFFIX  
PLASTIC PLCC PACKAGE  
CASE 776-02  
ISSUE D



## NOTES:

- DATUMS -L-, -M-, AND -N- DETERMINED WHERE TOP OF LEAD SHOULDER EXITS PLASTIC BODY AT MOLD PARTING LINE.
- DIM G1, TRUE POSITION TO BE MEASURED AT DATUM -T-, SEATING PLANE.
- DIM R AND U DO NOT INCLUDE MOLD FLASH. ALLOWABLE MOLD FLASH IS 0.010 (0.250) PER SIDE.
- DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
- CONTROLLING DIMENSION: INCH.
- THE PACKAGE TOP MAY BE SMALLER THAN THE PACKAGE BOTTOM BY UP TO 0.012 (0.300). DIMENSIONS R AND U ARE DETERMINED AT THE OUTERMOST EXTREMES OF THE PLASTIC BODY EXCLUSIVE OF MOLD FLASH, TIE BAR BURRS, GATE BURRS AND INTERLEAD FLASH, BUT INCLUDING ANY MISMATCH BETWEEN THE TOP AND BOTTOM OF THE PLASTIC BODY.
- DIMENSION H DOES NOT INCLUDE DAMBAR PROTRUSION OR INTRUSION. THE DAMBAR PROTRUSION(S) SHALL NOT CAUSE THE H DIMENSION TO BE GREATER THAN 0.037 (0.940). THE DAMBAR INTRUSION(S) SHALL NOT CAUSE THE H DIMENSION TO BE SMALLER THAN 0.025 (0.635).

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.485	0.495	12.32	12.57
B	0.485	0.495	12.32	12.57
C	0.165	0.180	4.20	4.57
E	0.090	0.110	2.29	2.79
F	0.013	0.019	0.33	0.48
G	0.050 BSC		1.27 BSC	
H	0.026	0.032	0.66	0.81
J	0.020	—	0.51	—
K	0.025	—	0.64	—
R	0.450	0.456	11.43	11.58
U	0.450	0.456	11.43	11.58
V	0.042	0.048	1.07	1.21
W	0.042	0.048	1.07	1.21
X	0.042	0.056	1.07	1.42
Y	—	0.020	—	0.50
Z	2°		10°	
G1	0.410	0.430	10.42	10.92
K1	0.040	—	1.02	—

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