

FEATURES

- 9-bit ideal for byte-parity applications
- Flow-through configuration
- Extra TTL and ECL power/ground pins to minimize switching noise
- ECL and TTL enable inputs
- Dual supply
- 3.5ns max. D to Q
- PNP TTL inputs for low loading
- Choice of ECL compatibility: MECL 10KH (10Hxxx) or 100K (100Hxxx)
- Fully compatible with Motorola MC10H/100H600
- Available in 28-pin PLCC package

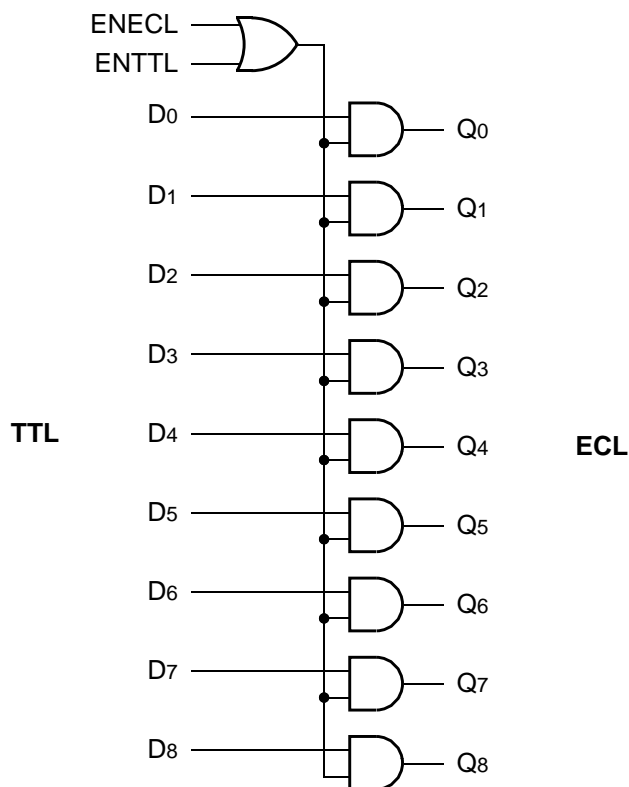
DESCRIPTION

The SY10/100H600 are 9-bit, dual supply TTL-to-ECL translators. Devices in the Micrel-Synergy 9-bit translator series utilize the 28-lead PLCC for optimal power pinning, signal flow-through and electrical performance.

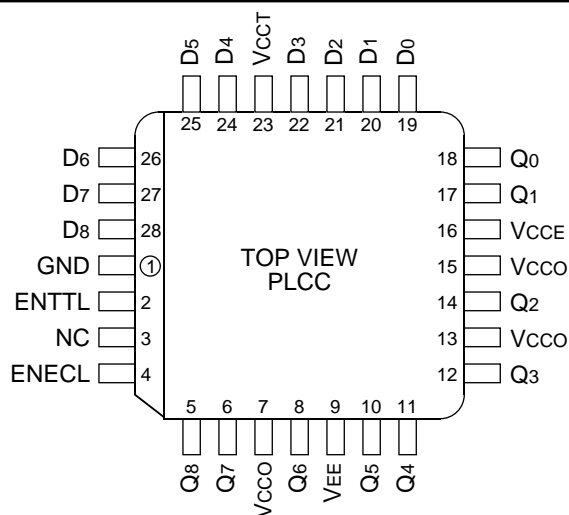
The H600 features both ECL and TTL logic enable controls for maximum flexibility.

The 10H version is compatible with MECL 10KH ECL logic levels. The 100H version is compatible with 100K levels.

BLOCK DIAGRAM



PIN CONFIGURATION



PIN NAMES

Pin	Function
GND	TTL Ground (0V)
V _{CC} E	ECL V _{cc} (0V)
V _{CC} O	ECL V _{cc} (0V) — Outputs
V _{CC} T	TTL Supply (+5.0V)
V _{EE}	ECL Supply (−5.2/−4.5V)
D ₀ –D ₈	Data Inputs (TTL)
Q ₀ –Q ₈	Data Outputs (ECL)
ENECL	Enable Control (ECL)
ENTTL	Enable Control (TTL)

TRUTH TABLE

ENECL	ENTTL	D	Q
H	X	H	H
H	X	L	L
X	H	H	H
X	H	L	L
L	L	X	L

DC ELECTRICAL CHARACTERISTICS

$V_{CC} = 5.0V \pm 10\%$; $V_{EE} = -4.75V$ to $-5.5V$ (10H Version); $V_{EE} = -4.2V$ to $-5.5V$ (100H Version)

Symbol	Parameter	TA = 0°C		TA = +25°C		TA = +85°C		Unit	Condition
		Min.	Max.	Min.	Max.	Min.	Max.		
IEE	Power Supply Current, ECL	—	125	—	125	—	125	mA	—
		—	122	—	123	—	132		
ICCH ICCL	Power Supply Current, TTL	—	48	—	48	—	48	mA	—
		—	50	—	50	—	50		

AC ELECTRICAL CHARACTERISTICS

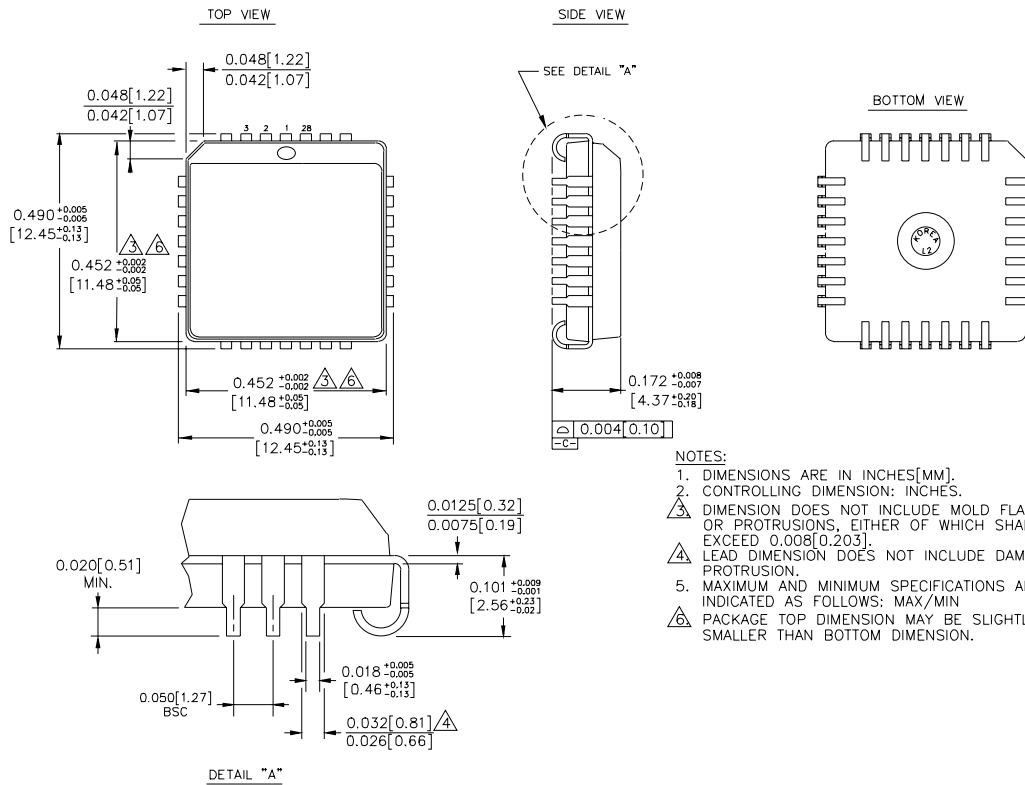
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Symbol	Parameter	TA = 0°C		TA = +25°C		TA = +85°C		Unit	Condition
		Min.	Max.	Min.	Max.	Min.	Max.		
tPLH tPHL	Propagation Delay to Output D ENECL/ENTTL	1.4 1.8	3.0 3.7	1.5 1.9	3.2 3.9	1.7 2.0	3.5 4.1	ns	50Ω to -2.0V
tr tf	Output Rise/Fall Time 20% to 80%, 80% to 20%	0.5	1.5	0.5	1.5	0.5	1.5		

PRODUCT ORDERING CODE

Ordering Code	Package Type	Operating Range
SY10H600JC	J28-1	Commercial
SY10H600JCTR	J28-1	Commercial
SY100H600JC	J28-1	Commercial
SY100H600JCTR	J28-1	Commercial

28 LEAD PLCC (J28-1)



Rev. 03

MICREL-SYNERGY 3250 SCOTT BOULEVARD SANTA CLARA CA 95054 USA

TEL + 1 (408) 980-9191 FAX + 1 (408) 914-7878 WEB <http://www.micrel.com>

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