

FEATURES

- Max. propagation delay of 900ps
- IEE min. of -92mA
- Industry standard 100K ECL levels
- Extended supply voltage option: VEE = -4.2V to -5.5V
- Voltage and temperature compensation for improved noise immunity
- Internal 75k Ω input pull-down resistors
- 60% faster than Fairchild 300K at lower power
- Function and pinout compatible with Fairchild F100K
- Available in 28-pin PLCC packages

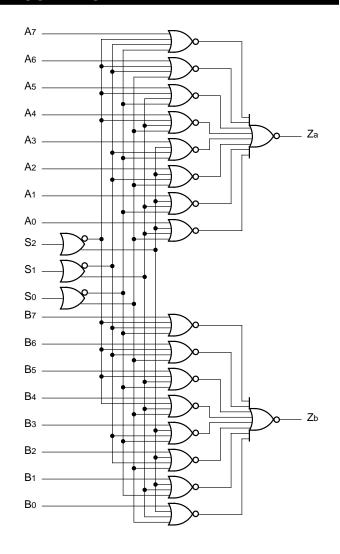
PIN NAMES

Pin	Function
S0 – S2	Data Select Inputs
A0 – A7	A Data Inputs
B0 – B7	B Data Inputs
Za, Zb	Data Outputs
VEES	VEE Substrate
VCCA	Vcco for ECL Outputs

DESCRIPTION

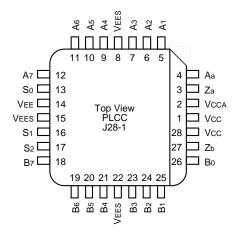
The SY100S363 is a dual 8-input multiplexer designed for use in new, high-performance ECL systems. The three Data Select inputs (S0, S1, S2) determine the bits from each of the inputs (An, Bn) that will be passed on through the two outputs. The same bit will be selected from the two groups of 8 inputs. The inputs on this device have $75k\Omega$ pull-down resistors.

BLOCK DIAGRAM



Micre, Inc. SY100S363

PACKAGE/ORDERING INFORMATION



28-Pin PLCC (J28-1)

Ordering Information

Part Number	Package Operating Package Type Range Marking			
SY100S363JC	J28-1	Commercial	SY100S363JC	Sn-Pb
SY100S363JCTR(1)	J28-1	Commercial	SY100S363JC	Sn-Pb
SY100S363JZ ⁽²⁾	J28-1	Commercial	SY100S363JZ with Pb-Free bar-line indicator	Matte-Sn
SY100S363JZTR ^(1, 2)	J28-1	Commercial	SY100S363JZ with Pb-Free bar-line indicator	Matte-Sn

Notes:

- 1. Tape and Reel.
- 2. Pb-Free package is recommended for new designs.

TRUTH TABLE(1)

Inputs											
	Select			Data							Outputs
S ₂	S ₁	So	A7/B7	A6/B6	A5/B5	A4/B4	A3/B3	A2/B2	A1/B1	Ao/Bo	Za/Zb
L L	L L	L L								L H	L H
L L	L L	ш							L H		L H
L L	H							L H			L H
L L	H	ΙI					L H				L H
H H	L L	∟ ∟				L H					L H
H H	L L	ΙI			L H						L H
H H	H	∟ ∟		L H							L H
H H	H H	ΙI	L H								LH

Note:

H = HIGH Voltage Level
 L = LOW Voltage Level
 Blank = X = Don't Care

DC ELECTRICAL CHARACTERISTICS

VEE = -4.2V to -5.5V unless otherwise specified; VCC = VCCA = GND

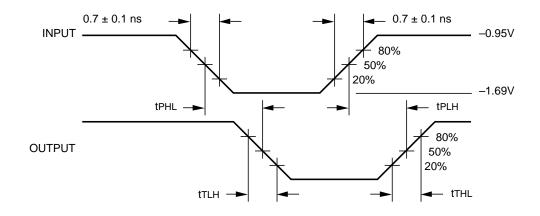
Symbol	Parameter	Min.	Тур.	Max.	Unit	Condition
Iн	Input HIGH Current				μΑ	VIN = VIH (Max.)
	Sn	_	_	200		
	An, Bn	_	_	200		
IEE	Power Supply Current	-92	-66	-45	mA	Inputs Open

AC ELECTRICAL CHARACTERISTICS

VEE = -4.2V to -5.5V unless otherwise specified; VCC = VCCA = GND

		TA = 0°C		TA = +25°C		TA = +85°C			
Symbol	Parameter	Min.	Max.	Min.	Max.	Min.	Max.	Unit	Condition
tPLH tPHL	Propagation Delay A0 – A7, B0 – B7 to Output	300	900	300	900	300	900	ps	
tPLH tPHL	Propagation Delay So – S2 to Output	400	1300	400	1300	400	1300	ps	
tTLH tTHL	Transition Time 20% to 80%, 80% to 20%	300	900	300	900	300	900	ps	

TIMING DIAGRAM



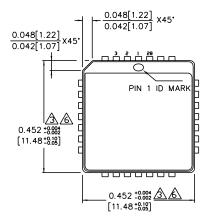
Propagation Delay and Transition Times

Note:

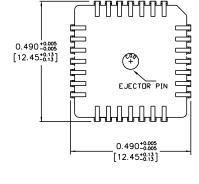
Vec = -4.2V to -5.5V unless otherwise specified; Vcc = VccA = GND

SY100S363 Micre, Inc.

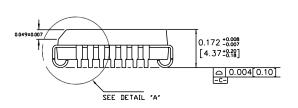
28-PIN PLCC (J28-1)



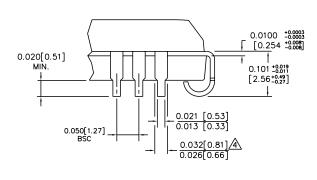
TOP VIEW



BOTTOM VIEW



SIDE VIEW



DETAIL "A"

Rev. A

NOTES:

- TES:

 DIMENSIONS ARE IN INCHES [MM].
 CONTROLLING DIMENSION: INCHES.

 DIMENSION DOES NOT INCLUDE MOLD FLASH
 OR PROTRUSIONS, EITHER OF WHICH SHALL NOT
 EXCEED 0.008 [0.203].

 LEAD DIMENSION DOES NOT INCLUDE DAMBAR
 PROTRUSION.

 MAXIMUM AND MINIMUM SPECIFICATIONS ARE
 INDICATED AS FOLLOWS: MAX/MIN
 PACKAGE TOP DIMENSION MAY RE SLIGHTLY

- PACKAGE TOP DIMENSION MAY BE SLIGHTLY SMALLER THAN BOTTOM DIMENSION.

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