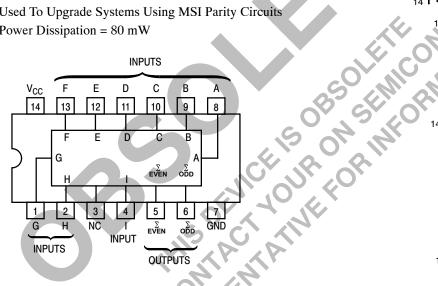
9-Bit Odd/Even Parity **Generators/Checkers**

The SN74LS280 is a Universal 9-Bit Parity Generator/Checker. It features odd/even outputs to facilitate either odd or even parity. By cascading, the word length is easily expanded.

The LS280 is designed without the expander input implementation, but the corresponding function is provided by an input at Pin 4 and the absence of any connection at Pin 3. This design permits the LS280 to be substituted for the LS180 which results in improved performance. The LS280 has buffered inputs to lower the drive requirements to one LS unit load.

- Generates Either Odd or Even Parity for Nine Data Lines
- Typical Data-to-Output Delay of only 33 ns
- Cascadable for n-Bits
- Can Be Used To Upgrade Systems Using MSI Parity Circuits
- Typical Power Dissipation = 80 mW



FUNCTION TABLE						
NUMBER OF INPUTS A	OUTPUTS					
THRU 1 THAT ARE HIGH	∑EVEN	∑ODD				

Н

L

Н

H = HIGH Level, L = LOW Level

0, 2, 4, 6, 8

1, 3, 5, 7, 9

GUARANTEED OPERATING RANGES

Symbol	Parameter	Min	Тур	Max	Unit
V _{CC}	Supply Voltage	4.75	5.0	5.25	V
T _A	Operating Ambient Temperature Range		25	70	°C
I _{OH}	Output Current – High			-0.4	mA
I _{OL}	Output Current – Low			8.0	mA



ON Semiconductor[™]

http://onsemi.com

LOW POWER SCHOTTKY



CASE 646

SOIC **D SUFFIX** CASE 751A



SOEIAJ **M SUFFIX CASE 965**

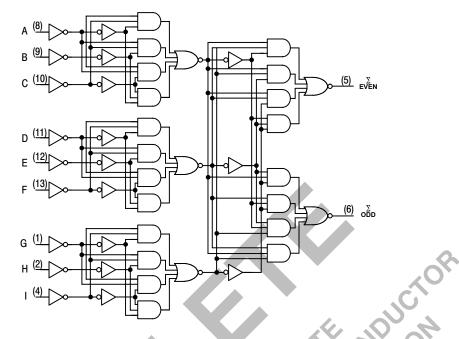
ORDERING INFORMATION

Device	Package	Shipping
SN74LS280N	14 Pin DIP	2000 Units/Box
SN74LS280D	SOIC-14	55 Units/Rail
SN74LS280DR2	SOIC-14	2500/Tape & Reel
SN74LS280M	SOEIAJ-14	See Note 1
SN74LS280MEL	SOEIAJ-14	See Note 1

1. For ordering information on the EIAJ version of the SOIC package, please contact your local ON Semiconductor representative.

© Semiconductor Components Industries, LLC, 2006

FUNCTIONAL BLOCK DIAGRAM



DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE (unless otherwise specified)

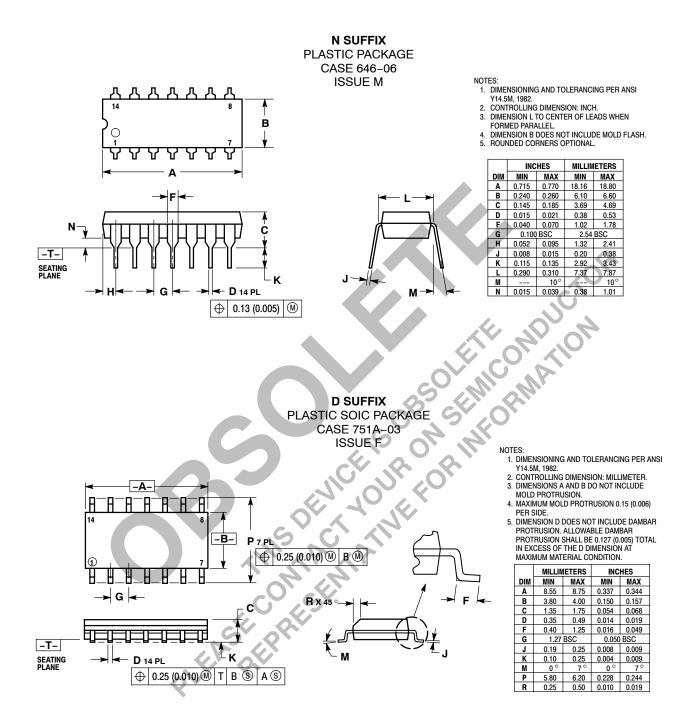
		Limits		\sim			
Symbol	Parameter	Min	Тур	Max	Unit	Tes	t Conditions
V _{IH}	Input HIGH Voltage	2.0		°O	vC	Guaranteed Input HIGH Voltage for All Inputs	
V _{IL}	Input LOW Voltage			0.8	v	Guaranteed Input LOW Voltage for All Inputs	
V _{IK}	Input Clamp Diode Voltage		-0.65	-1.5	V	V _{CC} = MIN, I _{IN} = -18 mA	
V _{OH}	Output HIGH Voltage	2.7	3.5		v	V_{CC} = MIN, I_{OH} = MAX, V_{IN} = V_{IH} or V_{IL} per Truth Table	
M			0.25	0.4	V	I _{OL} = 4.0 mA	$V_{CC} = V_{CC} MIN,$
V _{OL}	Output LOW Voltage		0.35	0.5	V	I _{OL} = 8.0 mA	V _{IN} = V _{IL} or V _{IH} per Truth Table
1	Input HIGH Current		1	20	μA	$V_{CC} = MAX, V_{IN} = 2.7 V$	
IIH		S		0.1	mA	V_{CC} = MAX, V_{IN} = 7.0 V	
IIL	Input LOW Current			-0.4	mA	V_{CC} = MAX, V_{IN} = 0.4 V	
I _{OS}	Short Circuit Current (Note 2)	-20		-100	mA	V _{CC} = MAX	
I _{CC}	Power Supply Current			27	mA	V _{CC} = MAX	

2. Not more than one output should be shorted at a time, nor for more than 1 second.

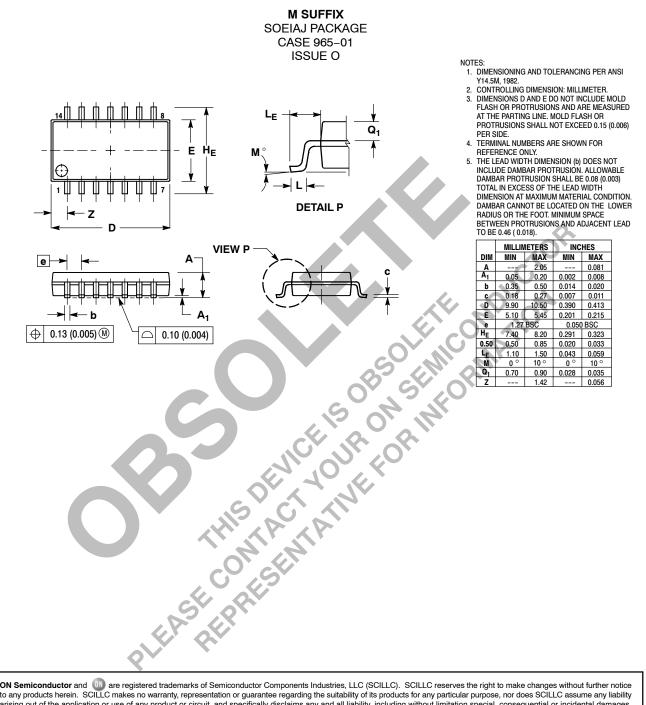
AC CHARACTERISTICS (T_A = 25°C, V_{CC} = 5.0 V)

		Limits					
Symbol	Parameter	Min	Тур	Max	Unit	Test Conditions	
t _{PLH} t _{PHL}	Propagation Delay, Data to Output ΣEVEN		33 29	50 45	ns	0 15 pE	
t _{PLH} t _{PHL}	Propagation Delay, Data to Output ΣODD		23 31	35 50	ns	C _L = 15 pF	

PACKAGE DIMENSIONS



PACKAGE DIMENSIONS



ON Semiconductor and I are registered trademarks of Semiconductor Components Industries, LLC (SCILLC). SCILLC reserves the right to make changes without further notice to any products herein. SCILLC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does SCILLC assume any liability arising out of the application or use of any provided in SCILLC data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters which may be provided in SCILLC data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. SCILLC does not convey any license under its patent rights nor the rights of others. SCILLC products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other application in which the failure of the SCILLC product create a situation where personal injury or death may occur. Should Buyer purchase or use SCILLC products for any such unintended or unauthorized application, Buyer shall indemnify and hold SCILLC and its officers, employees, subsidiaries, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that SCILLC was negligent regarding the design or manufacture of the part. SCILLC is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:

Literature Distribution Center for ON Semiconductor P.O. Box 5163, Denver, Colorado 80217 USA Phone: 303–675–2175 or 800–344–3860 Toll Free USA/Canada Fax: 303–675–2176 or 800–344–3867 Toll Free USA/Canada Email: orderlit@onsemi.com N. American Technical Support: 800–282–9855 Toll Free USA/Canada Europe, Middle East and Africa Technical Support:

Europe, Middle East and Africa Techr Phone: 421 33 790 2910 Japan Customer Focus Center Phone: 81–3–5773–3850

ON Semiconductor Website: www.onsemi.com

Order Literature: http://www.onsemi.com/orderlit

For additional information, please contact your local Sales Representative