

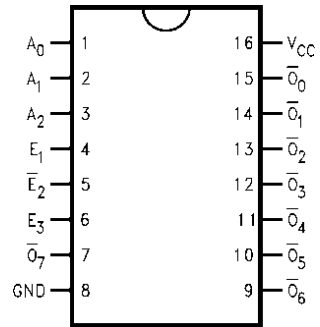
3-of-8 Decoder/Demultiplexer

74VHC138

XXX
 ALYW

General Description

The 74VHC138 is a 3-to-8 decoder/demultiplexer. It has three address inputs (A₀, A₁, A₂) and three enable inputs (E₁, E₂, E₃). The decoder has eight outputs (Y₀ through Y₇) which are active-low. The device is available in a 16-pin PDIP package.



74VHC138

TRUTH TABLE

Inputs						Outputs							
\bar{E}_1	\bar{E}_2	E_3	A_0	A_1	A_2	\bar{O}_0	\bar{O}_1	\bar{O}_2	\bar{O}_3	\bar{O}_4	\bar{O}_5	\bar{O}_6	\bar{O}_7
H	X	X	X	X	X	H	H	H	H	H	H	H	H
X	H	X	X	X	X	H	H	H	H	H	H	H	H
X	X	L	X	X	X	H	H	H	H	H	H	H	H
L	L	H	L	L	L	L	H						
L	L	H	H	L	L	H	L						
L	L	H	L	H	L	H	H						
L	L	H	H	H	L	H	H						

74VHC138

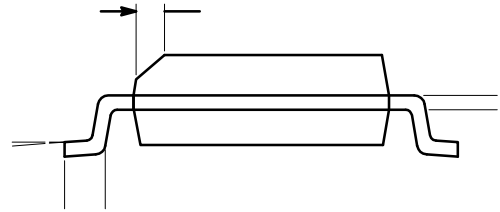
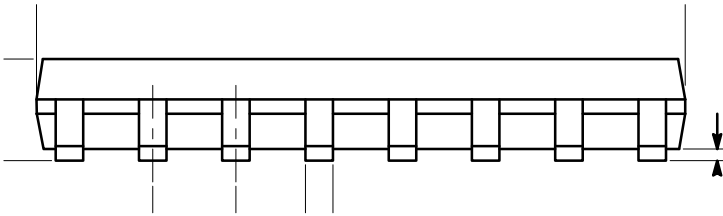
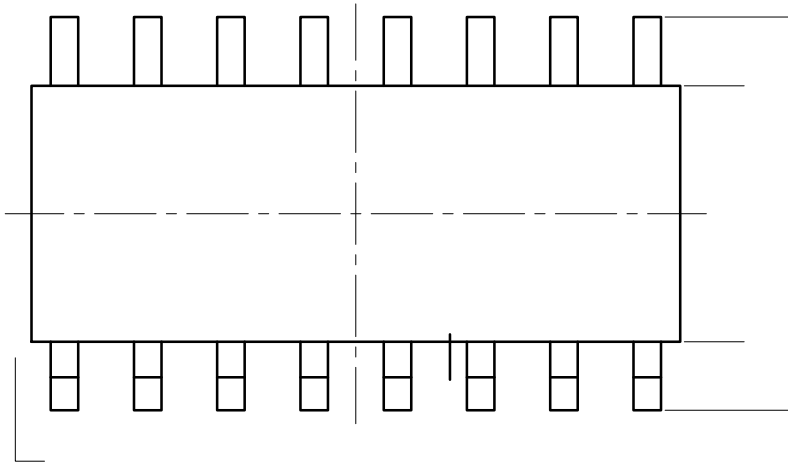
RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Min	Max	Unit
V_{CC}	DC Supply Voltage	2.0	3.6	V
V_{IN}	DC Input Voltage (Note 4)	0	5.5	V
V_{OUT}	DC Output Voltage (Note 4)	0	V_{CC}	V
T_A	Operating Temperature	-40	+85	°C
t_r, t_f	Input Rise and Fall Time	$V_{CC} = 3.0\text{ V to }3.6\text{ V}$ $V_{CC} = 4.5\text{ V to }5.5\text{ V}$	0 100 20	ns/V

Functional operation above the stresses listed in the Recommended Operating Ranges is not implied. Extended exposure to stresses beyond

SOIC-16, 150 mils
CASE 751BG
ISSUE O

DATE 19 DEC 2008



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DESCRIPTION:	SOIC-16, 150 mils	PAGE 1 OF 1

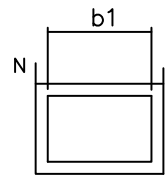
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TSSOP 16
CASE 948AH
ISSUE O

DATE 19 SEP 2008

SEE DETAIL "A" 0.19
0.09

4.30



THIS TABLE FOR

S Y M B O L	MIN.		
A			
A ₁	0.05		
A ₂		J	0.95
b			0.30
b ₁			0.25
c			0.20
c ₁			0.16
D			
E ₁			4.50
C		0.65 BSC	
E		6.40 BSC	
L		0.60	0.70

SEE VARIATIONS
| ——— | 8°

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