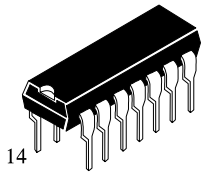
Timing Circuit

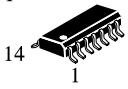
IN556

The IN556N/D monolithic timing circuit is a highly stable controller capable of producing accurate time delays, or oscillation.

- Timing From Microseconds Through Hours
- Operates in Both Astable and Monostable Modes
- High Current Output Can Source or Sink 200 mA



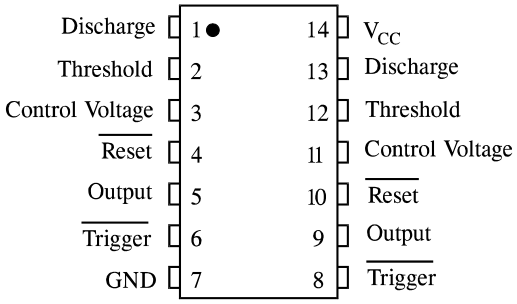
N SUFFIX
PLASTIC



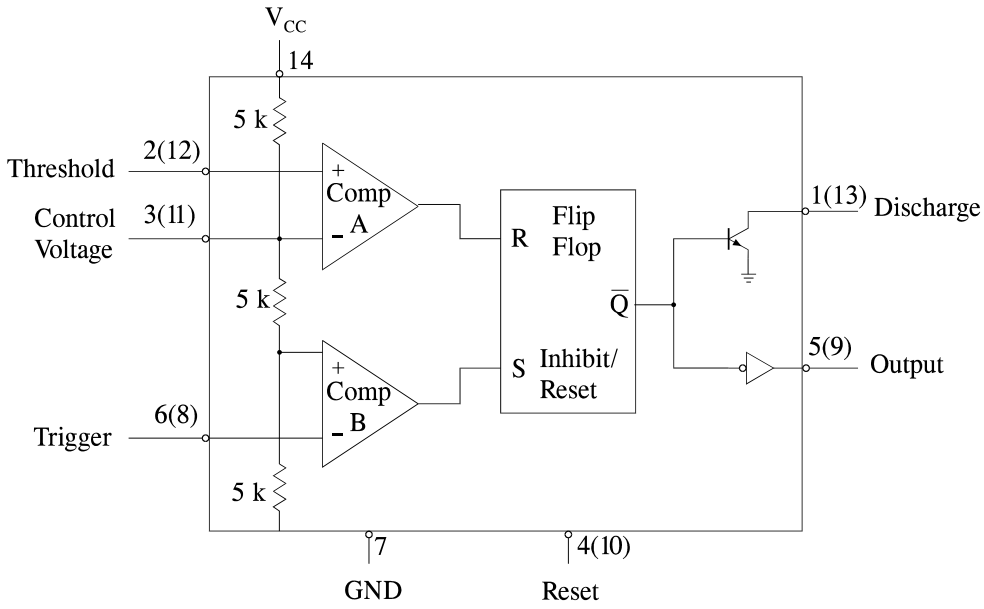
D SUFFIX
SOIC

ORDERING INFORMATION
IN556N Plastic
IN556D SOIC
T_A = -10° to 70° C for
all packages

PIN ASSIGNMENT



LOGIC DIAGRAM



MAXIMUM RATINGS*

Symbol	Parameter	Value	Unit
V_{CC}	Supply Voltage	18	V
Tstg	Storage Temperature	-60 to +85	°C

RECOMMENDED OPERATING CONDITIONS

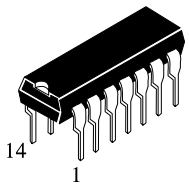
Symbol	Parameter	Min	Max	Unit
V_{CC}	Supply Voltage	4.5	16	V
T_A	Operating Temperature, All Package Types	-10	+70	°C

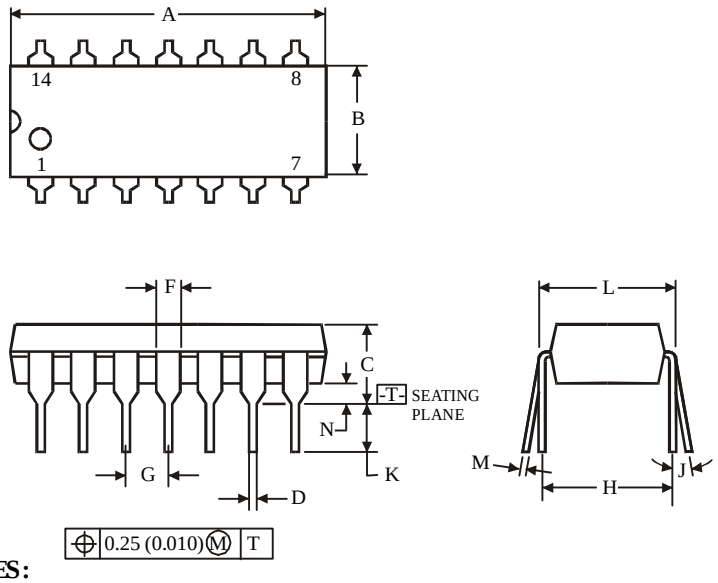
ELECTRICAL CHARACTERISTICS(T_A =+25°C)

Symbol	Parameter	Test Conditions	Guaranteed Limits		Unit
			Min	Max	
I_{CC}	Supply Current	V_{CC}=5.0 V, R_L =∞ V_{CC}=15 V, R_L=∞		12 30	mA
	Timing Error	R=1.0 kΩ to 100 kΩ Initial Accuracy C = 0.1 µF V_{CC}=5.0 V and V_{CC}=15 V		4	%
V_{th}	Threshold Voltage	V_{CC}=5.0 V V_{CC}=15 V	2.6 9	4.0 11	V
V_T	Trigger Voltage	V_{CC}=5.0 V V_{CC}=15 V	1.1 4.5	2.2 5.6	V
I_T	Trigger Current	$V_{06,08}$ =0 V, V_{CC}=15 V		-2	µA
V_R	Reset Voltage	V_{CC}=15 V	0.4	1.0	V
I_R	Reset Current	$V_{04,10}$ =0 V, V_{CC}=15 V		-0.6	mA
I_{th}	Threshold Current (Note 1)	$V_{02,12}$ =10 V, V_{CC}=15 V		0.25	µA
I_{dis}	Discharge Leakage Current	V_{CC}=15 V, $V_{01,13}$ =15 V		100	nA
V_{REF}	Control Voltage Level	V_{CC}=15 V V_{CC}=5.0 V	9.0 2.6	11 4.0	V
V_{OL}	Output Voltage Low	(V_{CC}=15 V) I_{sink}=10 mA, I_{sink}=50 mA, I_{sink}=100 mA, V_{CC}=5.0 V, I_{sink}=5.0 mA		 0.25 0.75 2.3 0.35	V
V_{OH}	Output Voltage High	I_{source}=200 mA,V_{CC}=15 V I_{source}=100 mA, V_{CC}=15 V I_{source}=100 mA, V_{CC}=5.0 V	12 12.75 2.75		V
t_{OLH}	Rise Time of Output	V_{CC}=15 V		300	ns
t_{OHL}	Fall Time of Output	V_{CC}=15 V		300	ns

Note 1. This will determine the maximum value of R_A + R_B for 15 V operation.
The maximum total R=20 MΩ.

N SUFFIX PLASTIC DIP
(MS - 001AA)



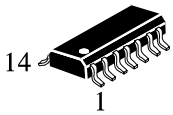


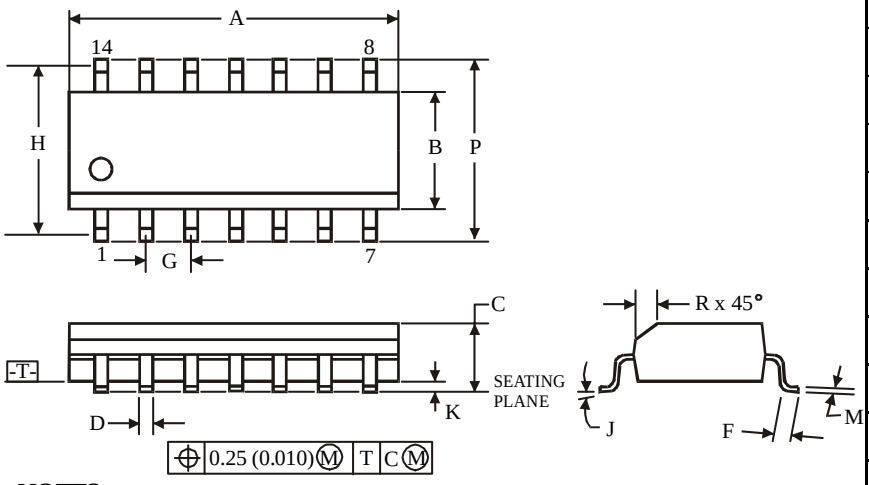
	Dimension, mm	
Symbol	**MIN**	**MAX**
A	18.67	19.69
B	6.1	7.11
C		5.33
D	0.36	0.56
F	1.14	1.78
G	2.54	
H	7.62	
J	0°	10°
K	2.92	3.81
L	7.62	8.26
M	0.2	0.36
N	0.38	

NOTES:

1. Dimensions “A”, “B” do not include mold flash or protrusions.
   Maximum mold flash or protrusions 0.25 mm (0.010) per side.

D SUFFIX SOIC
(MS - 012AB)





	Dimension, mm	
Symbol	**MIN**	**MAX**
A	8.55	8.75
B	3.8	4
C	1.35	1.75
D	0.33	0.51
F	0.4	1.27
G	1.27	
H	5.27	
J	0°	8°
K	0.1	0.25
M	0.19	0.25
P	5.8	6.2
R	0.25	0.5

NOTES:

1. Dimensions A and B do not include mold flash or protrusion.
2. Maximum mold flash or protrusion 0.15 mm (0.006) per side
   for A; for B – 0.25 mm (0.010) per side.