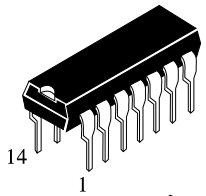
Timing Circuit

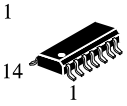
IN556

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



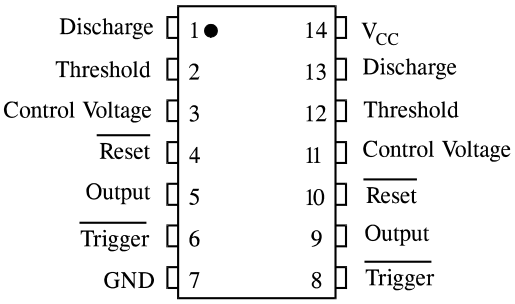
N SUFFIX
PLASTIC



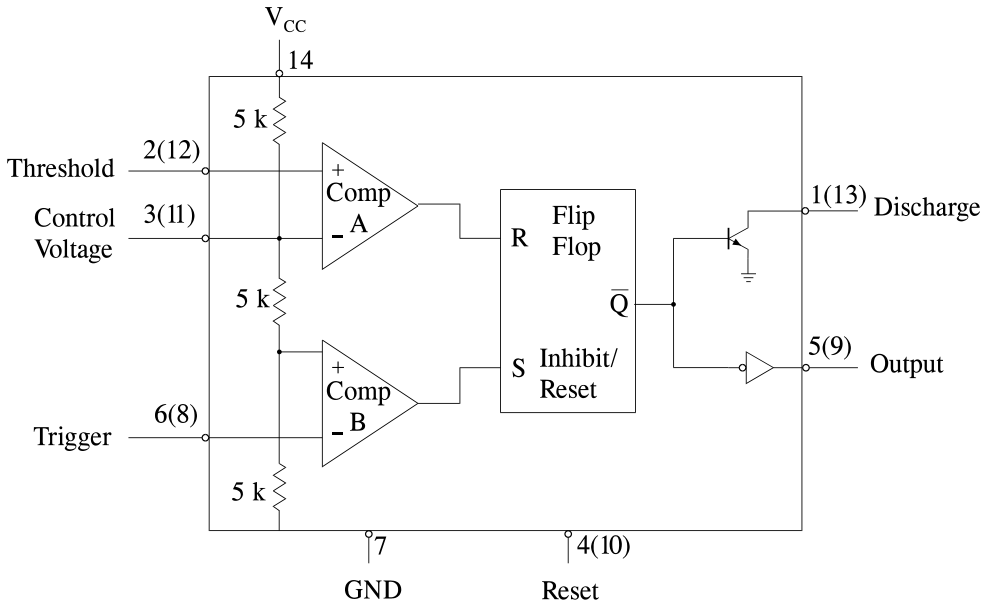
D SUFFIX
SOIC

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

* Stresses beyond those listed under “absolute maximum ratings” may cause permanent damage to the device.
These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated under “recommended operating conditions” is not implied.
Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

RECOMMENDED OPERATING CONDITIONS

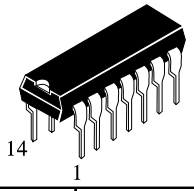
Symbol	Parameter	Min	Max	Unit
V_{CC}	Supply Voltage	4.5	16	V
T_A	Operating Temperature, All Package Types	-10	+70	°C

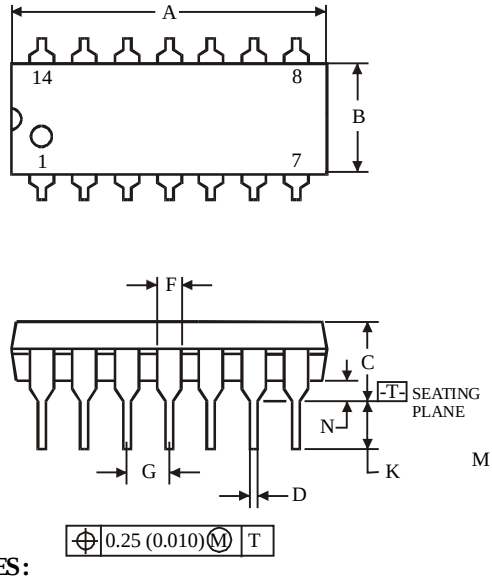
ELECTRICAL CHARACTERISTICS(T_A =+25°C)

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)



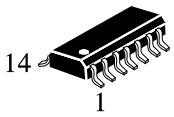


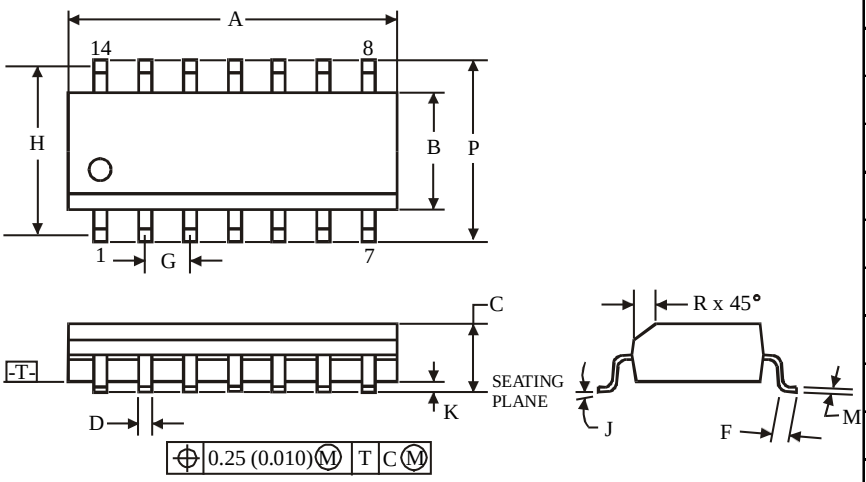
	Dimension, mm	
Symbol	**MIN**	**MAX**
A	18.67	19.69
B	6.1	7.11
C		5.33
D	0.36	0.56
F	1.14	1.78
G	2.54	
H	7.62	
J	0°	10°
K	2.92	3.81
L	7.62	8.26
M	0.2	0.36
N	0.38	

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.