NTE7043 & NTE7043P
Integrated Circuit
Motor Driver ᵂ/4 Modes

Features:

- 4 Modes Available: CW, CCW, STOP, and BRAKE
- Output Current Up to 1A (Average) and 2A (Peak)
- Wide Range of Operating Voltage:
  - V_{CC} opr = 4.5V to 18V
  - V_S = 0 to 18V
  - V_{ref} = 0 to 18V
- Built–In Thermal Shutdown, Overcurrent Protector, and Punch–Through Current Restriction Circuit
- Stand–By Mode Available: STOP Mode
- Hysteresis for All Inputs
- Two Package Styles Available:
  - NTE7043: 9–Lead SIP
  - NTE7043P: 10–Lead SIP ᵂ/Heat Sink Tab

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Supply Voltage, V_{CC} 25V

Motor Drive Voltage, V_S 25V

Reference Voltage, V_{ref} 25V

Output Current, I_O
  NTE7043
  Average 400mA
  Peak 1.2A
  NTE7043P
  Average 1A
  Peak 2A

Power Dissipation, P_D
  NTE7043 (T_A =+25°C) 750mW
  NTE7043P (T_C = +25°C) 12.5W

Operating Temperature Range, T_{opr} . . . . −30° to +75°C

Storage Temperature Range, T_{stg} . . . . −55° to +150°C

Electrical Characteristics: (T_A = +25°C, V_{CC} = 12V, V_S = 18V unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	I_{CC1}	Output OFF, CW/CCW Mode	–	8.0	13.0	mA
	I_{CC2}	Output OFF, STOP Mode	–	0	0.05	mA
	I_{CC3}	Output OFF, BRAKE Mode	–	6.5	10.0	mA
Input Operating Voltage High	V_{IN-H}	T_J = +25°C	3.5	–	5.5	V
Low	V_{IN-L}		0	–	0.8	V
Input Current	I_{IN}	V_{IN} = 3.5V, Sink Mode	–	3	10	μA
Input Hysteresis Voltage	V_{HYS}		–	0.7	–	V
Saturation Voltage Upper Side	$V_{SAT\ U-1}$	V_{ref} = V_S, V_{OUT} – V_S, Measure I_O = 200mA, CW/CCW Mode	–	0.9	1.2	V
Lower Side	$V_{SAT\ L-1}$		–	0.8	1.2	V
NTE7043 Upper Side	$V_{SAT\ U-2}$	V_{ref} = V_S, V_{OUT} – V_S, Measure I_O = 400mA, CW/CCW Mode	–	1.0	1.35	V
Lower Side	$V_{SAT\ L-2}$		–	0.9	1.35	V
NTE7043P Upper Side	$V_{SAT\ U-3}$	V_{ref} = V_S, V_{OUT} – V_S, Measure I_O = 1A, CW/CCW Mode	–	1.3	1.8	V
Lower Side	$V_{SAT\ L-3}$		–	1.2	1.75	V
Output Voltage NTE7043 (Upper Side)	$V_{SAT\ U-1}$	V_{ref} = 10V, V_{OUT} – GND, Measure I_O = 200mA, CW/CCW Mode	–	11.2	–	V
	$V_{SAT\ U-2}$	V_{ref} = 10V, V_{OUT} – GND, Measure I_O = 400mA, CW/CCW Mode	10.4	10.9	12.2	V
NTE7043P (Upper Side)	$V_{SAT\ U-3}$	V_{ref} = 10V, V_{OUT} – GND, Measure I_O = 500mA, CW/CCW Mode	–	11.0	–	V
	$V_{SAT\ U-4}$	V_{ref} = 10V, V_{OUT} – GND, Measure I_O = 1A, CW/CCW Mode	10.2	10.7	12.0	V
Leakage Current Upper Side	I_{L-U}	V_S = 25V	–	0	50	μA
Lower Side	I_{L-L}	V_S = 25V	–	0	50	μA
Diode Forward Voltage Upper Side NTE7043	$V_{F\ U-1}$	I_F = 400mA	–	1.5	–	V
NTE7043P	$V_{F\ U-2}$	I_F = 1A	–	2.5	–	V
Lower Side NTE7043	$V_{F\ L-1}$	I_F = 400mA	–	0.9	–	V
NTE7043P	$V_{F\ L-2}$	I_F = 1A	–	1.2	–	V
Reference Current	I_{ref}	V_{ref} = 10V, Source Mode	–	20	40	μA

Function Table:

| Input		Output		Mode
IN 1	**IN 2**	**OUT 1**	**OUT 2**	
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

Note 1. Inputs are all high active type.

Note 2. ∞: High impedance

Pin Connection Diagram
NTE7043
(Front View)

Pin	Name
9	Input 1
8	V_{ref}
7	Output 1
6	V_S
5	GND
4	N.C.
3	Output 2
2	V_{CC}
1	Input 2

NTE7043P
(Front VIew)

Pin	Name
10	Output 2
9	N.C.
8	V_S
7	V_{CC}
6	Input 2
5	Input 1
4	V_{ref}
3	N.C.
2	Output 1
1	GND

NTE7043

.126 (3.2)

.906 (23.0) Max

.323
(8.2)
Max

1   9

.012
(0.30)

.100
(2.54)

.020 (0.50)

.099
(2.5)
Min

.800 (20.3)

NTE7043P

1.063 (27.0) Max

.079
(2.0)

.882 (22.4)

.126 (3.2) Dia

.276
(7.0)

.315
(8.0)

1   10

.217 (5.5)

.100 (2.54)

.900 (22.8)
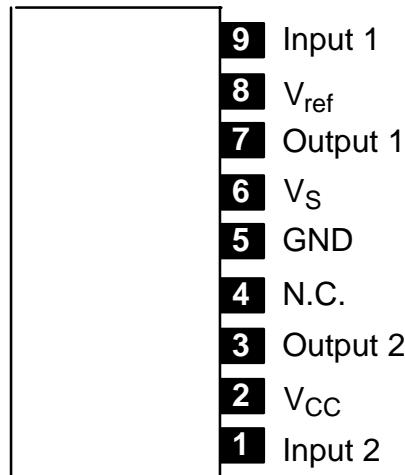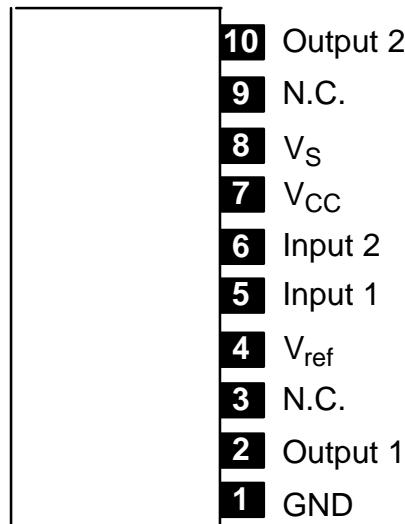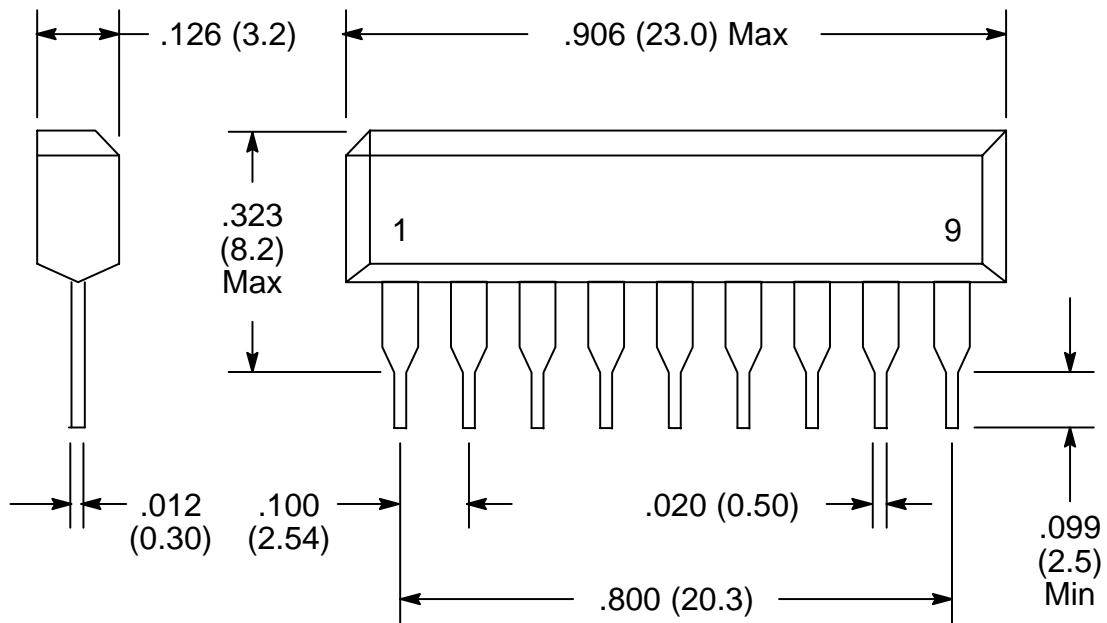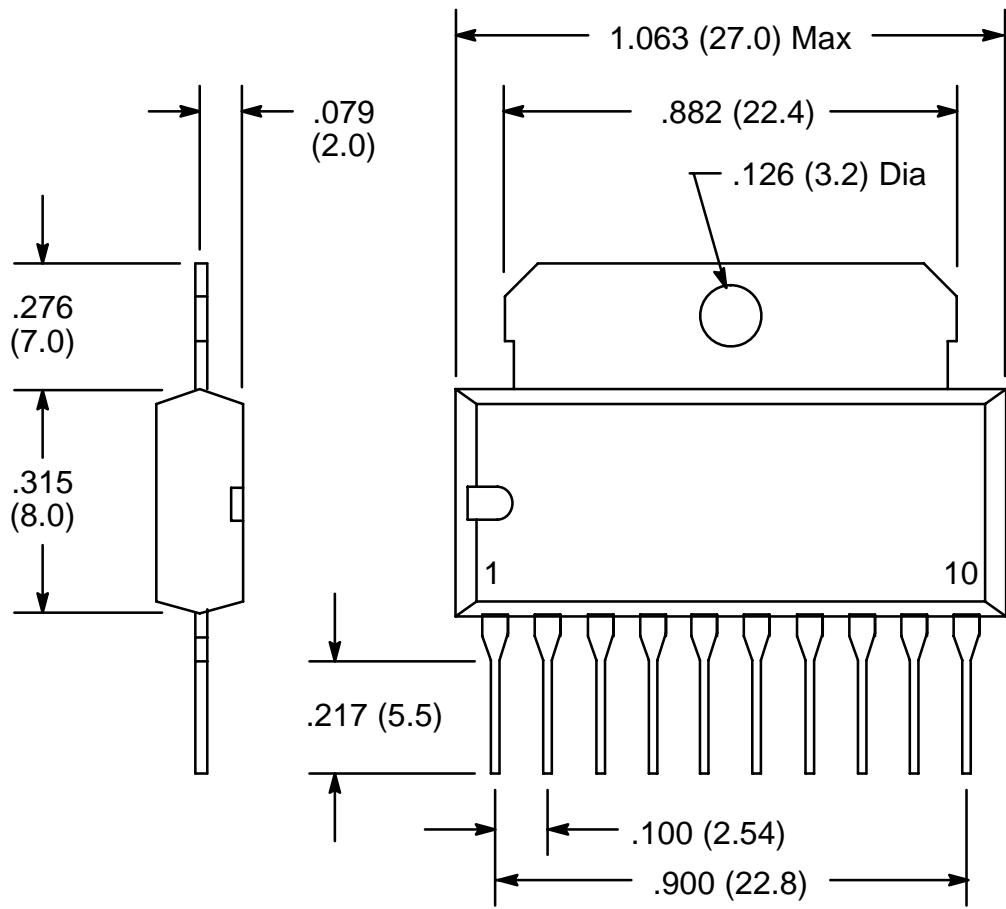
X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Motor/Motion/Ignition Controllers & Drivers *category:*

Click to view products by NTE *manufacturer:*

Other Similar products are found below :

LV8133JA-ZH LV8169MUTBG LV8774Q-AH LV8860PV-TLM-H MC33931EKR2 MC34GD3000EP FSB50250UTD FSB50550TB2 FSBF15CH60BTH MP6507GR-P MP6508GF MSVCPM2-63-12 MSVGW45-14-2 MSVGW54-14-5 NTE7043 CAT3211MUTAG LA6245P-CL-TLM-E LA6245P-TLM-E LA6565VR-TLM-E LB11650-E LB1694N-E LB1837M-TLM-E LB1845DAZ-XE LC898111AXB-MH LC898300XA-MH SS30-TE-L-E STK531-345A-E STK581U3A0D-E STK58AUNP0D-E STK621-068C-E STK621-140C STK621-728S-E STK625-728-E STK672-400B-E STK672-432AN-E STK672-432BN-E STK672-440AN-E STK672-442AN-E AMIS30621AUA FSB50550ASE 26700 LV8161MUTAG LV8281VR-TLM-H LV8702V-TLM-H LV8734VZ-TLM-H LV8773Z-E LV8807QA-MH MC33932EK MCP8024T-H/MP TND027MP-AZ