ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
http://www.nteinc.com

NTE1271
Integrated Circuit
Control Voltage Generator

Description:

The NTE1271 control voltage generator with three outputs is fabricated with bipolar linear technology. Two alternately exchangeble outputs are provided for two stabilized output levels controlled by an external signal. The NTE1271 is packaged in a 8–Lead SIP package with a heat radiation fin to allow for large power dissipation.

Features:

- No Need for External Components
- Three Outputs @ 8.2V typ
- Noise Protection Circuitry
- Overload Current Protection and Thermal Protection Circuitry
- Good Mountability
- High Output Current: 200mA typical for V_{O2} output
  100mA typical for V_{O0}, V_{O1} outputs

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

Input Voltage, V_{IN} 18V

Power Dissipation, P_D

($T_A \le$ +70°C, No Heat Sink) 1W

($T_A \le$ +70°C, Infinite Heat Sink) 4W

Operating Temperature Range, T_{opr} . . . . . –25° to +75°C

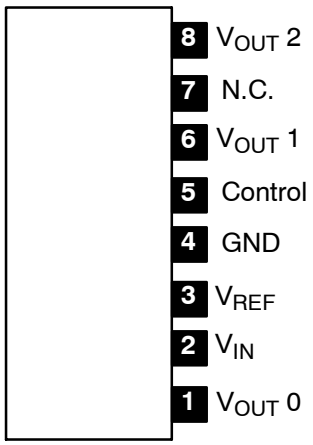
Storage Temperature Range, T_{stg} . . . . . –55° to +125°C

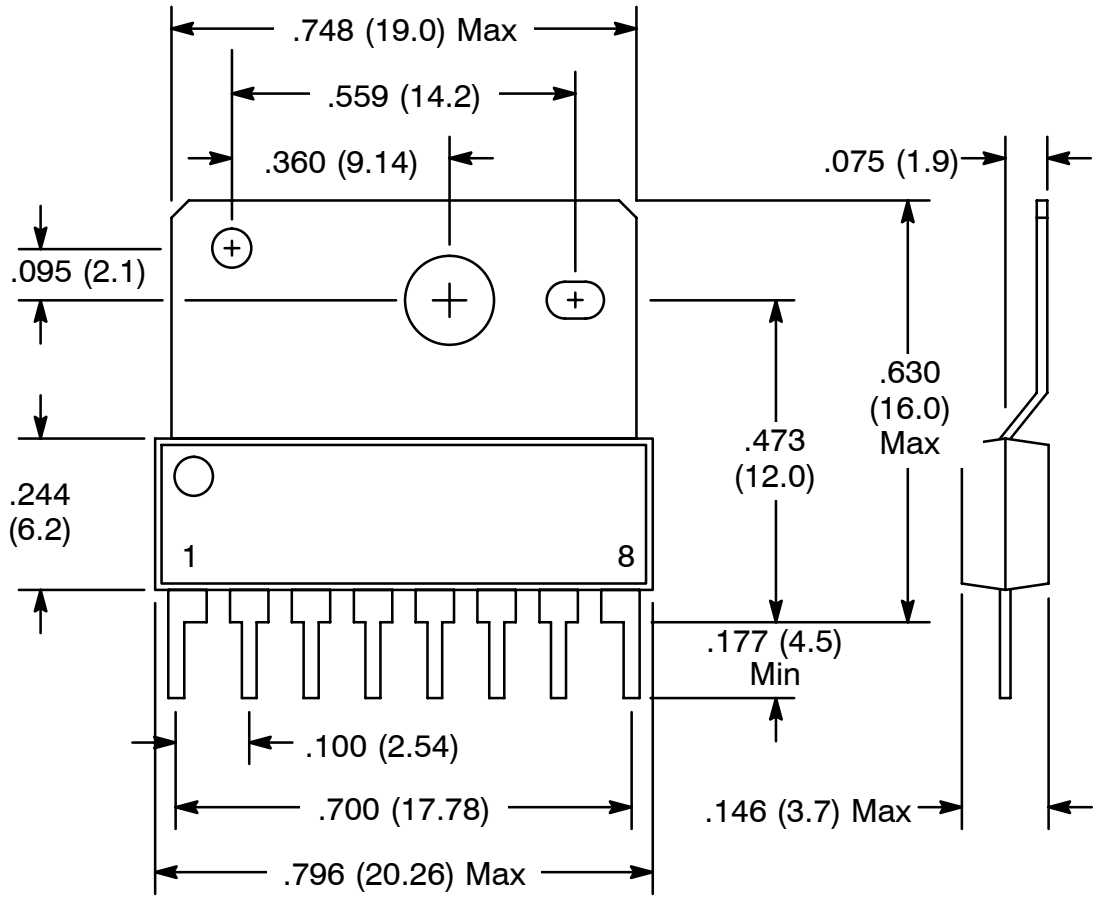
Note 1. Permanent device damage may occur if the above Absolute Maximum Ratings are exceeded. Functional operation should be restricted to the conditions as detailed in the operational sections of the data sheet. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

Electrical Characteristics: (T_C = +25°C, V_{IN} = 14V, R_{L0} = R_{L1} = 200Ω, R_{L2} = 100Ω unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Voltage	V_{IN}		10.6	–	18	V
Output Voltage	V_O		7.8	8.2	8.6	V
Input Regulation		11V ≤ V_{IN} ≤ 18V	–	20	100	mV
Load Regulation		(V_{CC}, V_{O1}) 1mA ≤ I_L ≤ 100mA	–	16	50	mV
		(V_{O2}) 1mA ≤ I_L ≤ 200mA	–	20	100	mV
		(V_{CC}, V_{O1}) 1mA ≤ I_L ≤ 100mA, V_{IN} = 11.6V	–	20	100	mV
		(V_{O2}) 1mA ≤ I_L ≤ 200mA, V_{IN} = 11.6V	–	30	150	mV
Bias Current	I_b	V_{IN} = 18V	–	5	18	mA
Ripple Rejection Ratio		f = 100Hz	–	60	–	dB
Output Noise Voltage		10Hz ≤ f ≤ 100kHz, C_R = 10μF	–	40	–	μV
Input to Output Voltage Differential	V_{IN}–V_O		–	1.7	–	V
Temperature Coefficient of Output Voltage	TCV_C		–	–0.4	–	mV/C°
Output Voltage Deviation	ΔV_O		–	10	50	mV
Short Circuit Output Current	I_{OS} (Peak)	(V_{CC}, V_{O1})	–	200	–	mA
		(V_{O2})	–	350	–	mA
Output Voltage	V_{O1L}	V_{CONT} = 0.8V	0	–	0.2	V
	V_{O2L}	V_{CONT} = 0.8V	7.8	8.2	8.6	V
	V_{O1H}	V_{CONT} = 2.0V	7.8	8.2	8.6	V
	V_{O2H}	V_{CONT} = 2.0V	0	–	0.2	V
Control Input Current	I_{IL}	V_{CONT} = 0V	–	–0.2	–1.0	mA
	I_{IH}	V_{CONT} = 15V, V_{IN} = 18V	–	–	10	μA

Pin Connection Diagram
(Front View)




.748 (19.0) Max
.559 (14.2)
.360 (9.14)
.075 (1.9)
.095 (2.1)
.630
(16.0)
Max
.473
(12.0)
.244
(6.2)
1
8
.177 (4.5)
Min
.100 (2.54)
.700 (17.78)
.146 (3.7) Max
.796 (20.26) Max