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NTE15044
Integrated Circuit
CMOS, LSI for Supply Voltage Detection

Description:

The NTE15044 is an integrated circuit in a 3–Lead DIP type package which generates a reset signal for initializing microcomputers and LSI systems at their power–on time, and a reset signal for preventing an abnormal system run at power fluctuation time.

Features:

- Generates a Reset Signal at Power–On Time Until Reaching a Constant Voltage
- Generates a Reset Signal Below a Constant Voltage at Power–Off Time
- Generates a Reset Signal when the Supply Voltage Falls, and Cancels it when the Supply Voltage is Restored
- Capable of Detecting a Battery Service Life
- 3–Pin Adjustment–Free Device
- High–Accuracy Voltage Detection
- Low Power Consumption: 10μA Typ @ V_{DD} = 5V

Absolute Maximum Ratings: (V_{SS} = 0, T_A = +25°C unless otherwise specified)

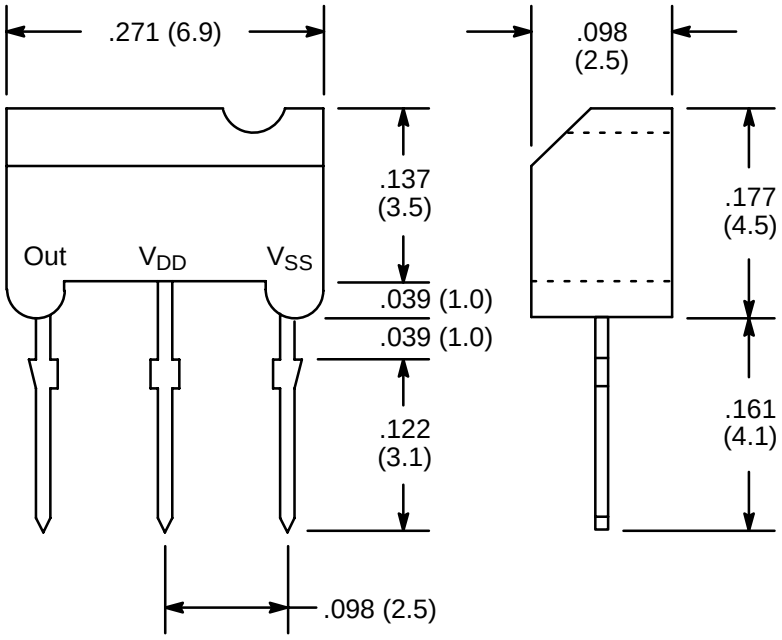
Supply Voltage, V_{DD} 7V
Output Voltage, V_O . . . . . –0.3 to V_{DD} +0.3V
Operating Ambient Temperature, T_{opr} . . . . . –20° to +70°C
Storage Temperature Range, T_{stg} . . . . . –55° to +125°C

Recommended Operating Conditions: (V_{SS} = 0, T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Voltage	V_{DD}		2	–	6	V

DC Electrical Characteristics: (V_{SS} = 0, T_A = –20° to +70°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	I_{DD}	V_{DD} = 5V at no–load output	–	10	30	μA
Detected Voltage Hysteresis Width	V_{DL}	T_A = +25°C	4.0	–	4.3	V
Detected Voltage at Supply Voltage Fall	ΔV_D	T_A = +25°C	100	200	300	mV
Output Voltage High Level	V_{OH}	I_{OH} = –40μA	0.8 V_{DD}	–	V_{DD}	V
Output Voltage Low Level	V_{OL}	I_{OL} = 0.7mA, V_{DD} = 3V	V_{SS}	–	0.4	V

AC Electrical Characteristics:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reset Cancel Time	t_{OH}		–	5	–	µs
Reset Time	t_{OL}		–	5	–	µs