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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

