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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: 10 μ A Typ @ $V_{DD} = 5V$

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

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

DC Electrical Characteristics: ($V_{SS} = 0$, $T_A = -20^\circ$ 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}	$T_A = +25^\circ C$	4.0	-	4.3	V
Detected Voltage at Supply Voltage Fall	ΔV_D	$T_A = +25^\circ C$	100	200	300	mV
Output Voltage High Level	V_{OH}	$I_{OH} = -40\mu A$	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

