

NTE1519 Integrated Circuit 10-Step LED Driver Circuit for Linear Scale

Features:

- 10 LED Bar Display Driver
- Linear Scale Display
- Continuous 10 LED Display
- By Connecting in Series, Can Display More than 10 LEDs

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

Supply Voltage, V_{CC}	20V
Power Dissipation, P_D	750mW
Derate Above 25°C	5mW/ $^\circ\text{C}$
Operating Temperature Range, T_{opr}	-30° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+125^\circ\text{C}$

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 12\text{V}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Voltage	V_{CC}		6	12	15	V
Supply Current	$I_{CC(1)}$	$V_{refmax} = 4\text{V}$, $V_{IN} = 0\text{V}$	–	15	20	mA
	$I_{CC(2)}$	$V_{refmax} = 4\text{V}$, $V_{IN} = 4.1\text{V}$, $I_O = 10\text{mA} \times 10$	–	150	160	mA
Internal Resistance	R_{TOT}		7	9	11	k Ω
Input Bias Current	I_{IN}	$V_{IN} = \text{GND}$	–	–0.25	–1.0	μA
Input Voltage Range	V_{IN}		0	–	8	V
Output Offset Voltage	V_{OFF}	$V_{ref} = 4\text{V}$	–40	–	40	mV
Output Voltage, High Level	V_{OH}	$V_{ref} = 4\text{V}$, $V_{IN} = \text{GND}$, $R_L = 1.5\text{k}\Omega$	11.9	11.93	–	V
Output Voltage, Low Level	V_{OL}	$V_{ref} = 4\text{V}$, $V_{IN} = 4.1\text{V}$, $R_L = 1.5\text{k}\Omega$	–	0.6	1.0	V
Output Current	I_O	$V_{ref} = 4\text{V}$, $V_{IN} = 4.1\text{V}$	–	7	12	mA
Leakage Current	I_{IL}	$V_{IN} = 4\text{V}$, $V_{refmax} = 0\text{V}$, $V_{refmin} = 0\text{V}$	–	–	15	μA

Pin Connection Diagram

