

NTE2026 Integrated Circuit Gas-Discharge Display Driver

Description:

The NTE2026 is a monolithic high-voltage bipolar integrated circuit which dramatically reduces the number of discrete components required to link MOS, or other low-voltage circuitry, with the anodes of gas-discharge display panels.

This device contains six drivers. Each driver has appropriate level shifting, signal amplification, output off-state voltage bias, and 40mA output current sourcing for sequential addressing of display panel anodes. The inputs include pull-down resistors for direct connection to open-drain PMOS logic.

The NTE2026 can be used in a wide variety of low- to high-voltage applications. High reliability, small size, ease of installation, and low cost make this device an ideal choice for many applications.

Features:

- TTL/MOS Compatible Inputs
- High Output Breakdown Voltage
- High Output Current capability
- Low Power
- Reliable Monolithic Construction

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

Supply Voltage, V_{BB}		+115V
Input Voltage, V_{IN}		+20V
Output Current, I_{OUT}		-40mA
Power Dissipation, P_D		2.1W
Derate Above $+25^\circ\text{C}$		16.7mW/ $^\circ\text{C}$
Operating Temperature Range, T_A		-20° to $+85^\circ\text{C}$
Storage Temperature Range, T_{stg}		-55° to $+150^\circ\text{C}$

Recommended Operating Conditions:

Parameter	Symbol	Min	Typ	Max	Unit
Supply Voltage	V_{BB}	—	—	100	V
Input ON Voltage	V_{IN}	2.4	—	15	V
Output ON Current	I_{IN}	—	—	25	mA

Electrical Characteristics: ($T_A = +25^{\circ}\text{C}$, $V_{BB} = 110\text{V}$, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Leakage Current	I_{OUT}	$V_{IN} = 0.4\text{V}$, $T_A = +70^{\circ}\text{C}$	–	–	15	μA
Output OFF Voltage	V_{OUT}	$V_{IN} = 0.4\text{V}$	–	–	1.0	V
Output Pull-Down Current	I_{OUT}	Input Open, $V_{OUT} = V_{BB}$	600	900	1500	μA
Output ON Voltage	V_{OUT}	$V_{IN} = 2.4\text{V}$, $I_{OUT} = -25\text{mA}$	107	108	–	V
Input ON Current	I_{IN}	$V_{IN} = 2.4\text{V}$	–	120	225	μA
		$V_{IN} = 5.0\text{V}$	–	375	650	
Supply Current	I_{BB}	All Input Open	–	10	100	μA
		Two Inputs = 2.4V	–	2.5	4.5	mA

Note 1. Positive (negative) current is defined as going into (coming out of) the specified device pin.

