



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089

NTE1478 Integrated Circuit Solenoid Driver & Signal Sensing Circuit

Description:

The NTE1478 is an integrated circuit in a 10-Lead SIP type package that detects the stopping of a rotary signal and drives a plunger. It is designed for use in auto-reverse and auto-eject car stereo applications and can be used as a solenoid driver in many other control circuits.

Features:

- Internal Output Power Transistor: 5A Load Current Capability
- Programmable Switch: Manual Operation Can be Obtained
- Pause Switch: Switching Pause (Switch ON), Plunger Does Not Operate Even if the Rotary Detective Signal Stops.
- Internal Load Dump Protector (Excessive Supply Voltage)
- Response Time and Driving Time are Variable with External Capacitors
- Input Sensitivity Voltage: 2V_{P-P} Min
- Operating Supply Voltage Range: V_{CC} = 9V to 18V

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Supply Voltage, V _{CC}	18V
Load Current, I _{OUT}	5A
Power Dissipation (T _C = +25°C), P _D	12.5W
Peak Supply Voltage (1200 ms), V _{CCsurge}	40V
Operating Temperature Range, T _{opr}	-30° to +75°C
Storage Temperature Range, T _{stg}	-55° to +150°C

Electrical Characteristics: (V_{CC} = 13.2V, R_L = 3.3Ω, T_A = +25°C, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Plunger Response Time	T _{rp}	C ₁ = 47μF, C ₂ = 10μF	–	1.3	–	sec
Plunger Driving Time	T _{dp}	C ₁ = 47μF, C ₂ = 10μF	–	100	–	msec
Supply Current	I _{CC(OFF)}	Current at Plunger OFF	3.0	5.6	9.0	mA
	I _{CC(ON)}	Current at Plunger ON	–	3.96	–	A
Pin2 Voltage	V ₂	Pin8 = GND, Pin4 = 9V	–	0.6	1.0	V
Power Transistor Cutoff Current	I _{CER}	Pin2 = 40V, Pin10 = GND	–	–	100	μA

Pin Connection Diagram
(Front View)

