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## NTE2076 Integrated Circuit 7-Segment Darlington Transistor Array w/Clamp Diode

**Description:**

The NTE2076 is constructed with a 7-circuit Darlington Transistor Array by a NPN Transistor and is a semi-conductor integrated circuit (IC) which can drive large electric current with very small input current.

**Features:**

- High Electric Voltage Endurance ( $BV_{CEO} \geq 40V$ )
- Large Electric Current Drive ( $I_C (max) = 150mA$ )
- Convenient for Practical Attachment
- Available to Drive with PMOS IC Output
- Clamp Diode Attached
- Wide Input Voltage Range ( $-40V$  to  $+40V$ )
- Wide Operating Temperature Range ( $T_A = -20^\circ$  to  $+75^\circ C$ )

**Applications:**

Attachment relay or printer drive, digit drive of LED and lamps indicator device, interface of MOS bipolar-logic IC, etc.

**Absolute Maximum Ratings:** ( $T_A = -20^\circ$  to  $+75^\circ C$  unless otherwise specified)

Voltage Between Collector and Emitter when Output is "High", $V_{CEO}$ .....	-0.5 to +40V
Collector Current when Output is "Low", each Current for a Circuit, $I_C$ .....	150mA
Input Voltage, $V_i$ .....	-40 to +40V
Clamp Diode Positive-Direction Current, $I_r$ .....	150mA
Clamp Diode Negative-Direction Voltage, $V_a$ .....	40V
Power Consumption ( $T_A = +25^\circ C$ ), $P_d$ .....	1.47W
Operating Ambient Temperature Range, $T_{opr}$ .....	-20° to +75°C
Storage Temperature Range, $T_{stg}$ .....	-55° to +125°C

**Electrical Characteristics:** ( $T_A = -20^\circ$  to  $+75^\circ C$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	$V_O$		0	-	40	V
Collector Current	$I_C$	Duty Cycle 40% or less (each current for a circuit)	0	-	150	mA
"High" Input Voltage	$V_{"H"}$	$I_C = 150mA$	7	-	35	V
"Low" Input Voltage	$V_{"L"}$	$I_{O(Leak)} = 50\mu A$	0	-	1	V

### Pin Connection Diagram

