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## NTE2077 Integrated Circuit 6-Stage Darlington Transistor Array w/Clamp Diode

**Description:**

The NTE2077 is a six-circuit Darlington transistor array with clamping diodes. The circuits are made of NPN transistors. Both the semiconductor integrated circuits perform high-current driving with extremely low input-current supply.

**Features:**

- High breakdown voltage ( $BV_{CEO} \geq 40V$ )
- High-current driving ( $I_{C(max)} = 150mA$ )
- With clamping diodes
- Driving available with PMOS IC output of 8V to 18V
- Wide input voltage range ( $V_I = -40V$  to  $+40V$ )
- Wide operating temperature range ( $T_A = -20^\circ$  to  $+75^\circ C$ )

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

Collector-Emitter Voltage (Output, H),  $V_{CEO}$  ..... -0.5V to +40V  
 Collector Current,  $I_C$  (Current per Circuit Output, L) ..... 150mA  
 Input Voltage,  $V_I$  ..... -40V to 40V  
 Clamp Diode Forward Current,  $I_F$  ..... 150mA  
 Clamp Diode Reverse Voltage,  $V_R$  ..... 40V  
 Power Dissipation ( $T_A = +25^\circ C$ , when mounted on board),  $P_D$  ..... 1.47W  
 Operating Ambient Temperature Range,  $T_{opr}$  .....  $-20^\circ$  to  $+75^\circ C$   
 Storage Temperature Range,  $T_{stg}$  .....  $-55^\circ$  to  $+125^\circ C$

**Recommended Operational Conditions:** ( $T_A = -20^\circ$  to  $+75^\circ C$ , unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	$V_O$		0	-	40	V
Collector Current per Channel	$I_C$	Percent Duty Cycle Less than 50%	0	-	150	mA
"H" Input Voltage	$V_{IH}$		7	-	35	V
"L" Input Voltage	$V_{IL}$		0	-	1	V

