

NTE1705 Integrated Circuit VCR Hall Switch

Description:

This device operates with a small permanent magnet and provides switching operation by increasing or decreasing the magnetic flux density. The device features operation on alternate magnetic field and a wide range of operating temperature.

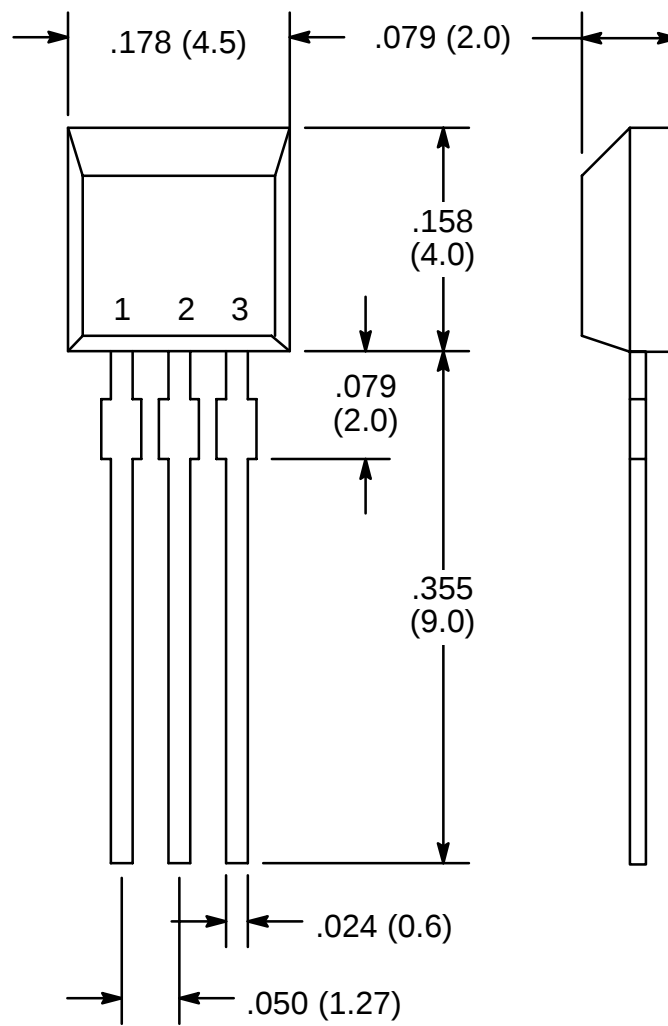
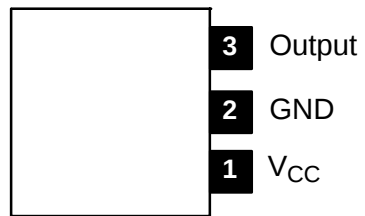
Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Supply Voltage, V_{CC}	18V
Supply Current, I_{CC}	8mA
Output Current, I_O	-1/20mA
Power Dissipation, P_D	100mW
Operating Temperature Range, T_{opr}	-40° to $+100^\circ\text{C}$
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
Magnetic Flux Density Output LOW $\rightarrow$ HIGH	$B_{(L \rightarrow H)}$		-300	-	-	Gauss
Magnetic Flux Density Output HIGH $\rightarrow$ LOW	$B_{(H \rightarrow L)}$		-	-	300	Gauss
Output Voltage, "L" Level	V_{OL}	$V_{CC} = 16\text{V}$, $I_O = 12\text{mA}$, $B = 300\text{Gauss}$	-	-	0.4	V
		$V_{CC} = 8\text{V}$, $I_O = 12\text{mA}$, $B = 300\text{Gauss}$	-	-	0.4	V
Output Voltage, "H" Level	V_{OH}	$V_{CC} = 16\text{V}$, $I_O = -30\mu\text{A}$, $B = 300\text{Gauss}$	12	-	-	V
		$V_{CC} = 8\text{V}$, $I_O = -30\mu\text{A}$, $B = 300\text{Gauss}$	4	-	-	V
Output Short-Circuit Current	$-I_{OS}$	$V_{CC} = 16\text{V}$, $V_O = 0$, $B = -300\text{Gauss}$	0.32	-	0.68	mA
Supply Current	I_{CC}	$V_{CC} = 16\text{V}$	-	-	6.0	mA
		$V_{CC} = 8\text{V}$	-	-	5.5	mA

Pin Connection Diagram
(Front View)



Pin 1. V_{CC}
Pin 2. GND
Pin 3. Output