



ELECTRONICS, INC.
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NTE1629 Integrated Circuit TV Sync Separator Detector

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

Supply Voltage, V_{CC}	13.2V
Supply Current, I_{CC}	50mA
Power Dissipation, P_D	660mW
Operating Ambient Temperature Range, T_{opr}	-20° to $+70^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° to $+150^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Circuit Current	I_{tot}	$V_{CC} = 11V$	25	32	39	mA
Sync. Sep. Pulse Width	$t_{(sync)}$	Video Input Signal $4.5\mu\text{s}$, APL = 50%, $1.5V_{P-P}$	4.1	4.7	5.3	μs
Sync. Sep. Amplification	$V_{(sync)}$		9.0	-	-	V
Horiz OSC Starting Voltage	$V_{OSC-(H)}$	$f_{HO} = 11\text{kHz}$ to 19kHz	3.0	-	-	V
Horiz Pulse Width (Duty)	t_{HO}	$V_{CC} = 11V$	28.5	33.0	38.0	%
Horiz OSC Frequency	f_{HO}	$V_{CC} = 11V$	15.0	15.75	16.5	kHz
f_{HO} Change with Supply Voltage	$\Delta f_{HO}/V_{CC}$	$f_{HO} 8.8V - f_{HO} 11V$	-	-	130	Hz
f_{HO} Change with Ambient Temperature	$\Delta f_{HO}/T_A$	$f_{HO} -20^\circ - f_{HO} 60^\circ\text{C}$	-	-	260	Hz
Frequency Change with Ambient Temperature	β	$\Delta I_O = \pm 25\mu\text{A}$	14.6	15.6	16.6	Hz/ μA
OSC Output Saturation Voltage	V_{7-5}	$V_{CC} = 11V, I_1 = 3\mu\text{A}$	-	1.2	2.0	V
OSC Output Driving Current	I_7	$V_{CC} = 11V, V_{8-9} = 9V$	300	-	-	mA
DC Loop Gain	f_{DC}	$\mu \times \beta$	-	620	-	Hz/ μs

Pin Connection Diagram
(Front View)

