



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>

NTE1099 Integrated Circuit Chroma Demodulator

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

Supply Voltage, V_{CC}	28V
Power Dissipation, P_D	700mW
Chroma Signal Input Voltage, e_c	$5V_{p-p}$
Reference Signal Input Voltage, E_{B-y} , E_{R-y}	$5V_{p-p}$
Operating Temperature Range, T_{opr}	-20° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° to $+125^\circ\text{C}$

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

Parameter	Symbol	Test Conditions			Min	Typ	Max	Unit	
		e_c	e_{B-y}	e_{R-y}					
Supply Current	I_{CC}	0	0	0	$R_L = 1M\Omega$	6	8.7	12	mA
		0	0	0	$R_L = 3.9k\Omega$	-	19.2	-	mA
DC Voltage at any output terminal	V_O	0	0	0	Direct Output Config.	10.0	12.7	16.0	V
	$V_{O'}$	0	0	0	Level Shifted Output Config.	-	6.0	-	V
Differential Output Voltage	ΔV_O	0	0	0	Direct Output Config.	-	± 1	-	V
	$\Delta V_{O'}$	0	0	0	Level Shifted Output Config.	-	± 1	-	V
Supply Voltage Ripple Rejection Ratio	V_O/V_{CC}	0	0	0	Direct Output Config.	-	-20	-	dB
	$V_{O'}/V_{CC'}$	0	0	0	Level Shifted Output Config.	-	-20	-	dB
Temp. Coefficient of Output Voltage	k	0	0	0	Direct Output Config.	-	-4.5	-	mV/ $^\circ\text{C}$
	k'	0	0	0	Level Shifted Output Config.	-	-2.3	-	mV/ $^\circ\text{C}$
B-Y Output Voltage	E_{B-Y}	2	2	2		8	12	-	V_{p-p}
B-Y Input Voltage	E_{G-Y}	-	2	2	$E_{B-Y} = 5V_{p-p}$	-	0.4	-	V_{p-p}
R-Y Output Voltage	E_{R-Y}	-	2	2		-	3.8	-	V_{p-p}
G-Y Output Voltage	E_{G-Y}	-	2	2		-	1	-	V_{p-p}
Relative Demodulation Angle	θ_{B-R}					-	106	-	$^\circ$
	θ_{B-G}				-	256	-	$^\circ$	
AC Unbalanced Voltage	E_u	0	2	2		-	0.5	-	V_{p-p}

Pin Connection Diagram

