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## 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, $T_{opr}$ .....	$-20^\circ$ to $+75^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-40^\circ$ 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	$\Delta V_O$	0	0	0	Direct Output Config.	-	$\pm 1$	-	V
	$\Delta V_{O'}$	0	0	0	Level Shifted Output Config.	-	$\pm 1$	-	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	$\theta_{B-R}$					-	106	-	$^\circ$
	$\theta_{B-G}$					-	256	-	$^\circ$
AC Unbalanced Voltage	$E_u$	0	2	2		-	0.5	-	$V_{p-p}$

### Pin Connection Diagram

