

## NTE1400 Integrated Circuit FM Limiter Circuit

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

Supply Voltage ( $V_{12-4}$ ), $V_{CC}$ .....	15.6V
Supply Current, $I_{CC}$ .....	30mA
Power Dissipation, $P_D$ .....	490mW
Operating Temperature Range, $T_{opr}$ .....	$-20^\circ$ to $+70^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-40^\circ$ to $+150^\circ\text{C}$

**Electrical Characteristics:** ( $V_{CC} = V_{12-4} = 12\text{V}$ ,  $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Circuit Current	$I_{12}$		15	25	30	mA
Output Amplitude	$V_{8(P-P)}$	$V_{14} = 0$ to $6.3\text{V}$	1.0	1.2	-	V
Voltage Gain for Reference Wave	$G_V$	$f = 4\text{MHz}$ , $V_i = 0.14\text{mV}_{P-P}$	1.0	-	-	$V_{P-P}$
2 <sup>nd</sup> Harmonics Attenuation	$V_{O(f)}/V_{O(2f)}$	$f = 4\text{MHz}$ , $V_i = 100\text{mV}_{P-P}$	40	-	-	dB
		$V_{12} = 9\text{V}$ , $f = 6\text{MHz}$ , $V_i = 10\text{mV}_{P-P}$	40	-	-	dB
		$f = 4\text{MHz}$ , $V_i = 1.0\text{V}_{P-P}$	40	-	-	dB
		$f = 4\text{MHz}$ , $V_i = 100\text{mV}_{P-P}$ , $T_A = +70^\circ\text{C}$	-	41	-	dB
		$f = 4\text{MHz}$ , $V_i = 100\text{mV}_{P-P}$ , $T_A = -20^\circ\text{C}$	-	48	-	dB
DC Current Gain (T30)	$h_{FE(T30)}$	$V_{7-4} = 5\text{V}$ , $V_{6-4} = 0.7\text{V}$ , $I_5 = -1\text{mA}$	40	-	200	

### Pin Connection Diagram

