

## NTE7031 Integrated Circuit Module – AF Power Amp, Single Channel, 100W Min

**Features:**

- Built-In Muting Circuit Reduces Pop On Noises

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

Maximum Supply Voltage, $V_{CCmax}$ .....	$\pm 73\text{V}$
Thermal Resistance, Junction-to-Case, $R_{thJC}$ .....	$1.1^\circ\text{C/W}$
Junction Temperature, $T_J$ .....	$+150^\circ\text{C}$
Operating Case Temperature, $T_C$ .....	$+125^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-30^\circ$ to $+125^\circ\text{C}$
Available Time for Shorted Load ( $V_{CC} = \pm 51.0\text{V}$ , $R_L = 8\Omega$ , $f = 50\text{Hz}$ , $P_O = 100\text{W}$ ), $t_s$ .....	2sec

**Recommended Operating Conditions:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Operating Voltage, $V_{CC}$ .....	$\pm 51.0\text{V}$
Load Resistance, $R_L$ .....	$8\Omega$

**Operating Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = \pm 51.0\text{V}$ ,  $R_L = 8\Omega$ ,  $R_g = 600\Omega$ ,  $V_G = 40\text{dB}$ ,  $R_L$ : Non-Inductive Load unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	$I_{CCO}$	$V_{CC} = \pm 61\text{V}$	15	–	120	mA
Output Power	$P_O$	THD = 0.4%, $f = 20\text{Hz}$ to $20\text{kHz}$	100	–	–	W
Total Harmonic Distortion	THD	$P_O = 1.0\text{W}$ , $f = 1\text{kHz}$	–	–	0.4	%
Frequency Response	$f$	$P_O = 1.0\text{W}$ , +0dB, –3dB	20 to 50k			Hz
Input Resistance	$r_i$	$P_O = 1.0\text{W}$ , $f = 1\text{kHz}$	–	55	–	k $\Omega$
Output Noise Voltage	$V_{NO}$	$V_{CC} = \pm 61\text{V}$ , $R_g = 10\text{k}\Omega$	–	–	1.2	mVrms
Midpoint Voltage	$V_N$	$V_{CC} = \pm 61\text{V}$	–70	0	+70	mV

**Pin Connection Diagram**  
(Front View)

