

## NJM4556

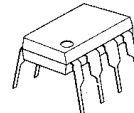
The 4556 integrated circuit is a high-gain, high output current dual operational amplifier capable of driving  $\pm 70\text{mA}$  into  $150\Omega$  loads ( $\pm 10.5\text{V}$  output voltage). The 4556 combines many of the features of the popular 4558 as well as having the capability of driving  $150\Omega$  loads. In addition, the wide band-width, low noise, high slew rate and low distortion of the 4556 make it ideal for many audio, telecommunications and instrumentation applications.

### Absolute Maximum Ratings (Ta=25°C)

Supply Voltage	$V^+/V^-$	$\pm 18\text{V}$
Differential Input Voltage	$V_{ID}$	$\pm 30\text{V}$
Input Voltage(note)	$V_I$	$\pm 15\text{V}$
Power Dissipation	$P_D$ (D,S-Type)	700mW
	(M,E-Type)	300mW
Operating Temperature Range	$T_{opr}$	$-20\sim+75^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	$-40\sim+125^\circ\text{C}$

(note) For supply voltage less than  $\pm 15\text{V}$ , the absolute maximum input voltage is equal to the supply voltage.

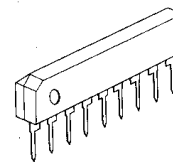
### Package Outline



NJM4556D



NJM4556M  
NJM4556E

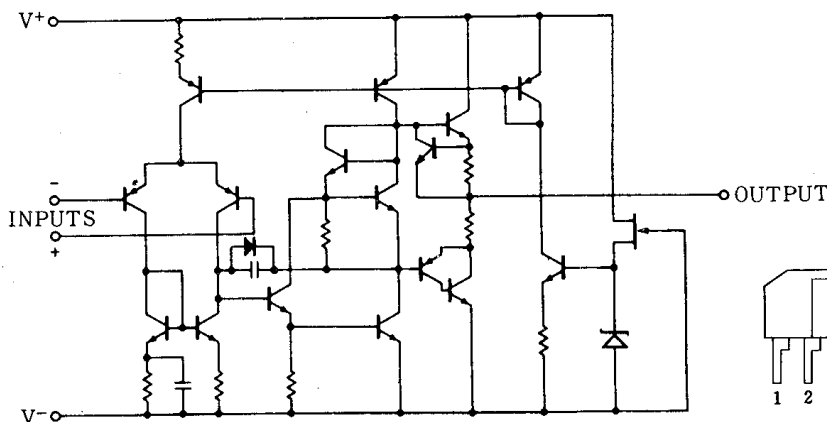


NJM4556S

### Electrical Characteristics (Ta=25°C, V+=15V, V-=-15V)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input Offset Voltage	$V_{IO}$	$R_S \leq 10\text{k}\Omega$	—	0.5	6	mV
Input Offset Current	$I_{IO}$		—	$\pm 5$	$\pm 60$	nA
Input Bias Current	$I_{IB}$		—	180	500	nA
Input Resistance	$R_{IN}$		0.3	5	—	M $\Omega$
Large Signal Voltage Gain	$A_V$	$R_L \geq 2\text{k}\Omega, V_O = \pm 10\text{V}$	20	100	—	$\times 10^3$
Maximum Output Voltage Swing 1	$V_{OM1}$	$R_L \geq 2\text{k}\Omega$	$\pm 12$	$\pm 13.5$	—	V
Maximum Output Voltage Swing 2	$V_{OM2}$	$R_L \geq 150\Omega$	$\pm 10.5$	$\pm 11$	—	V
Input Common Mode Voltage Range	$V_{ICM}$		$\pm 12$	$\pm 14$	—	V
Common Mode Rejection Ratio	CMR	$R_S \leq 10\text{k}\Omega$	70	90	—	dB
Supply Voltage Rejection Ratio	SVR	$R_S \leq 10\text{k}\Omega$	—	30	150	$\mu\text{V/V}$
Power Dissipation	$P_D$		—	270	360	mW
Slew Rate	SR		—	3	—	V/ $\mu\text{S}$
Unity Gain Bandwidth	$f_T$		—	8	—	MHz

### Equivalent Circuit (1/2 Shown)



### Connection Diagram

