

DOLBY B-TYPE NOISE REDUCTION PROCESSOR

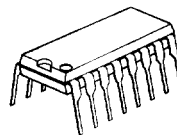
■ GENERAL DESCRIPTION

The NJM2063A is the dual low-voltage operating DOLBY B-type noise reduction processor IC. The NJM2036A operates as encode or decode mode and is suitable to the headphone stereo and small cassette tape recorder.

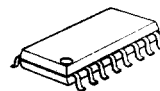
■ FEATURES

- Operating Voltage (1.8V~6V)
- 16 pins, Dual Circuit
- Minimum External Components
- Good temperature characteristics (4mA)
- Internal NR ON/OFF and Mode SW
- Excellent Signal Handling characteristics
- Package Outline DIP16, DMP16
- Bipolar Technology

■ PACKAGE OUTLINE



NJM 2063 AD



NJM 2063 AM

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■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V ⁺	6.5	V
Power Dissipation	P _D	(DIP16) 700 (DMP16) 350	mW
Operating Temperature Range	T _{opr}	-25~+75	°C
Storage Temperature Range	T _{stg}	-55~+150	°C

■ ELECTRICAL CHARACTERISTICS

(V⁺=3.0V, Dolby Level=100mV_{rms}=0dB, Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V ⁺	—	1.8	3.0	6.0	V
Operating Current	I _{CC}	NR ON (ENCODE)	—	8.0	15.0	mA
Voltage Gain	Gv23 / Gv15-14	f=1kHz, 0dB	9.0	10.0	11.0	dB
	Gv24 / Gv15-13		9.0	10.0	11.0	dB
Total Harmonic Distortion	THD	f=1kHz, ENCODE	—	0.2	0.6	%
Signal Handling	—	V ⁺ =1.8V, f=1kHz, THD<1%	12.0	—	—	dB
S/N Ratio	S/N	Rg=5.6kΩ CCIR/ARM FILTER	64.0	72.0	—	dB
		Encode	—	83.0	—	
		Decode	—	74.0	—	
N.R Encode Boost 20 log $\frac{V_{3(14)}(N.R ON)}{V_{3(14)}(N.R OFF)}$	ENC-1.4k	f=1.4kHz, V ₃₍₁₄₎ (N.R OFF)=-20dB	2.9	4.4	5.9	dB
	ENC-1.4k	f=1.4kHz, V ₃₍₁₄₎ (N.R OFF)=-30dB	6.0	7.5	9.0	dB
	ENC-5k	f=5kHz, V ₃₍₁₄₎ (N.R OFF)=-20dB	1.7	3.2	4.7	dB
	ENC-5k	f=5kHz, V ₃₍₁₄₎ (N.R OFF)=-30dB	6.7	8.2	9.7	dB
	ENC-10k	f=10kHz, V ₃₍₁₄₎ (N.R OFF)=0dB	-1.1	0.4	1.9	dB
	ENC-10k	f=10kHz, V ₃₍₁₄₎ (N.R OFF)=-40dB	9.8	10.4	11.8	dB