

DOLBY B-TYPE NOISE REDUCTION PROCESSOR

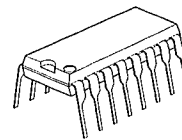
■ GENERAL DESCRIPTION

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.

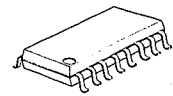
■ FEATURES

- 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 Handing 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=100mVrms=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 | G _{v23} / G _{v13-14} | f=1kHz, 0dB | 9.0 | 10.0 | 11.0 | dB |
| | G _{v24} / G _{v15-13} | | 9.0 | 10.0 | 11.0 | |
| Total Harmonic Distortion | THD | f=1kHz, ENCODE | — | 0.2 | 0.6 | % |
| Signal Handing | — | V*=1.8V, f=1kHz, THD<1% | 12.0 | — | — | dB |
| S/N Ratio | S/N | R _g =5.6kΩ CCR/ARM FILTER | | | | |
| | | Encode | 64.0 | 72.0 | — | dB |
| | | Decode | — | 83.0 | — | |
| NR-OFF | — | 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 |

MEMO

[CAUTION]

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