

AN6326N

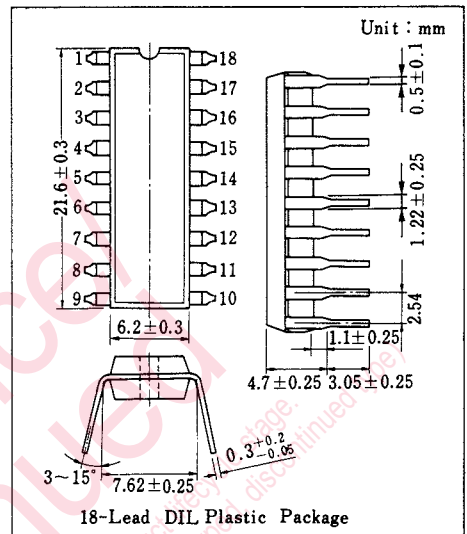
VTR Head Amplifier Circuit

Outline

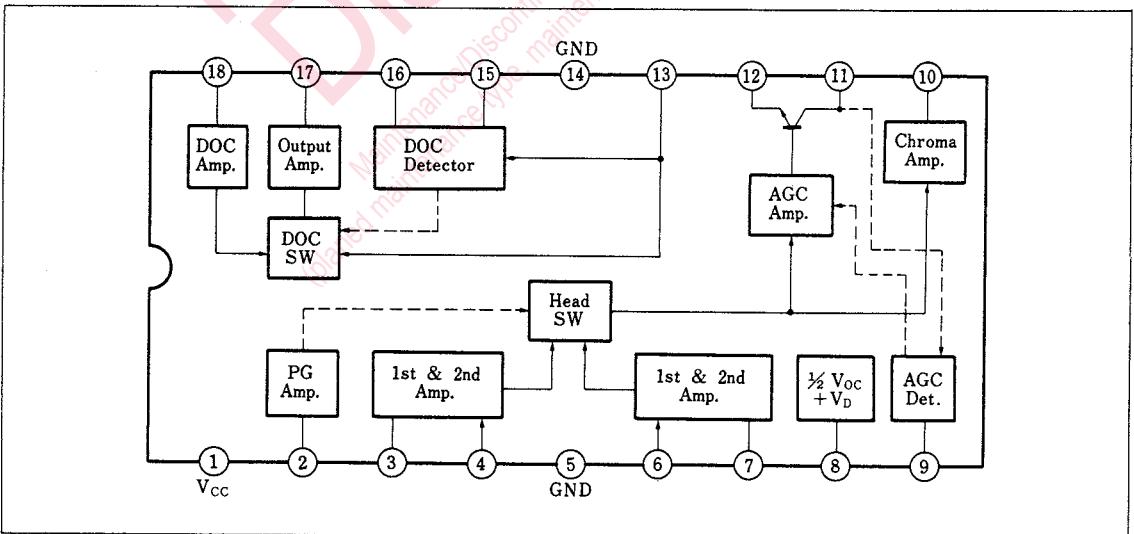
The AN6326N is an integrated circuit designed for VTR'S head amplifier.

Features

- The function consist of:
 - Video signal pre-amplifier circuit
 - Head switchover circuit
 - Drop-out compensation circuit
 - RF AGC circuit
- Low-noise head amplifier
- Supply voltage: 5V



Block Diagram



■ Pin

| Pin No. | Pin Name | Pin No. | Pin Name |
|---------|-------------------|---------|----------------|
| 1 | V _{cc} | 10 | Chroma Output |
| 2 | PG Input | 11 | FM Output |
| 3 | Damping (1) | 12 | FM Equalizer |
| 4 | FM Input (1) | 13 | DOC Input |
| 5 | GND | 14 | GND |
| 6 | FM Input (2) | 15 | DOC Pulse |
| 7 | Damping (2) | 16 | DOC Detect |
| 8 | Reference Voltage | 17 | FM Output |
| 9 | AGC Detect | 18 | DOC Amp. Input |

■ Absolute Maximum Ratings (T_a=25°C)

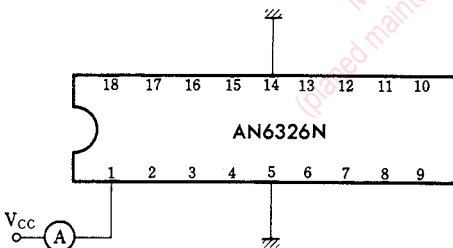
| Item | Symbol | Rating | Unit |
|-------------------------------|------------------|----------|------|
| Supply voltage | V _{cc} | 6.0 | V |
| Power dissipation | P _d | 160 | mW |
| Operating ambient temperature | T _{opr} | -20~+70 | °C |
| Storage temperature | T _{stg} | -40~+150 | °C |

■ Electrical Characteristics (V_{cc} = 5 V, T_a = 25°C ± 2°C)

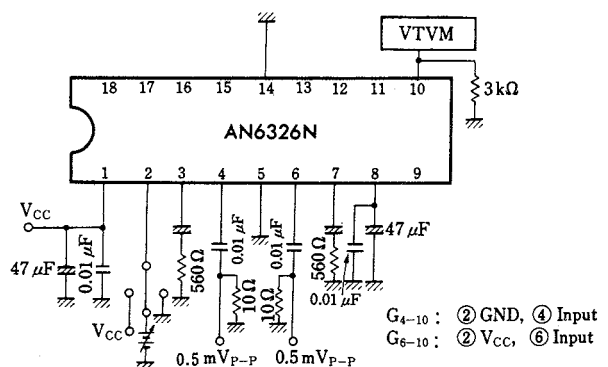
| Item | Symbol | Test Circuit | Condition | min. | typ. | max. | Unit |
|---------------------------------|-------------------------|--------------|-----------|-------|------|------|-------------------|
| Circuit current | I ₁ | 1 | | 8 | | 20 | mA |
| Ch. 1 gain | G _{V4-10} | 2 | f = 1 MHz | 52.5 | | 62.5 | dB |
| Ch. 2 gain | G _{V6-10} | 2 | f = 1 MHz | 52.5 | | 62.5 | dB |
| AGC output amplitude | V _{O(AGC-12)} | 3 | f = 4 MHz | 170 | | 330 | mV _{P-P} |
| AGC control sensitivity | ΔV _{O(AGC-12)} | 3 | f = 4 MHz | | | 2.5 | dB |
| Output amplifier gain | G _{V13-17} | 4 | f = 4 MHz | 0.05 | | 2.7 | dB |
| DOC amplifier gain | G _{V18-17} | 4 | f = 4 MHz | 10.5 | | 14.0 | dB |
| DOC sensitivity ON | S ₁₃₋₁ | 4 | f = 4 MHz | | | -19 | dB |
| DOC sensitivity OFF | S ₁₃₋₂ | 4 | f = 4 MHz | -10.8 | | | dB |
| PG input sensitivity | S ₂ | 2 | | | | 3 | V |
| Noise voltage referred to input | V _{ni1} | 5 | 1 MHz BPF | | | 1 | μV _{rms} |
| Noise voltage referred to input | V _{ni2} | 5 | 1 MHz BPF | | | 1 | μV _{rms} |

Note) Operating supply voltage range V_{cc(oper)} = 4.5~5.5V

Test Circuit 1 (I₁)



Test Circuit 2 (G_{V4-10}, G_{V6-10}, S₂)



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