



## ■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

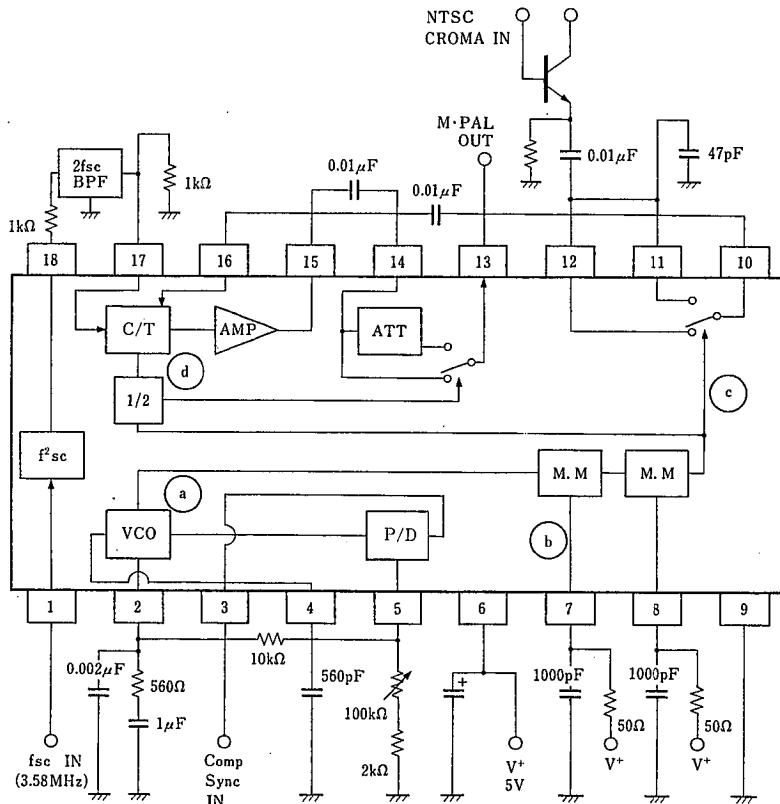
| PARAMETER                   | SYMBOL           | RATINGS  | UNIT |
|-----------------------------|------------------|----------|------|
| Supply Voltage              | V'               | +10      | V    |
| Power Dissipation           | P <sub>D</sub>   | 700      | mW   |
| Operating Temperature Range | T <sub>opr</sub> | -20~+75  | °C   |
| Storage Temperature Range   | T <sub>stg</sub> | -40~+125 | °C   |

## ■ ELECTRICAL CHARACTERISTICS

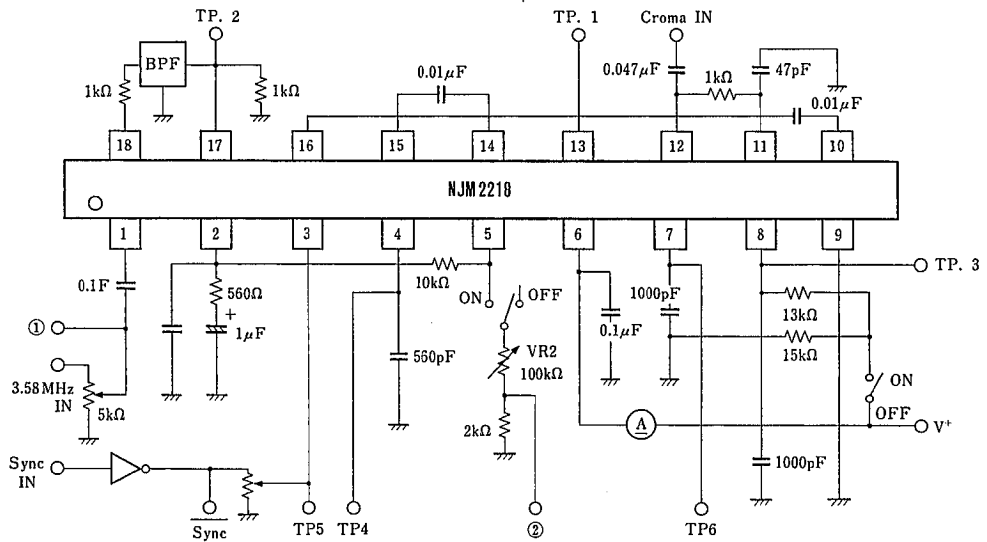
(V'=50V, Ta=25°C)

| PARAMETER                    | SYMBOL             | MIN.            | TYP. | MAX. | UNIT |     |
|------------------------------|--------------------|-----------------|------|------|------|-----|
| Operating Current            | I <sub>CC</sub>    | —               | 20   | 28   | mA   |     |
| Signal Doubler Gain          | G <sub>2fsc</sub>  | -1.4            | +0.6 | +2.6 | dB   |     |
| AFC Characteristic           | Free-Run Frequency | f <sub>fH</sub> | 18.0 | 20.0 | —    | kHz |
|                              |                    | f <sub>fL</sub> | —    | 11.0 | 18.5 | kHz |
|                              | Lock Range         | Δf <sub>L</sub> | 3.0  | 5.0  | —    | kHz |
|                              | Capture Range      | Δf <sub>C</sub> | 0.8  | 1.3  | —    | kHz |
| Mono Multi Characteristic    | Pulse Delay Time   | P <sub>dt</sub> | -0.7 | 3.0  | 13.0 | μs  |
|                              | Pulse Wide (1)     | P <sub>w1</sub> | 7.0  | 9.0  | 11.0 | μs  |
|                              | Pulse Wide (2)     | P <sub>w2</sub> | 8.0  | 10.0 | 12.0 | μs  |
| M/PAL Convert Characteristic | Offset Voltage     | Δv              | 0    | 20   | 80   | mV  |
|                              | Gain Difference    | ΔG              | 2.0  | 5.0  | 8.0  | dB  |
|                              | M/PAL Convert Gain | V               | -3.0 | -1.0 | 1.0  | dB  |
| SyncThreshold Level          | V <sub>S-TH</sub>  | 0.7             | 1.4  | 2.0  | V    |     |

## ■ APPLICATION



■ TEST CIRCUIT



## ■ BLOCK EXPLANATION

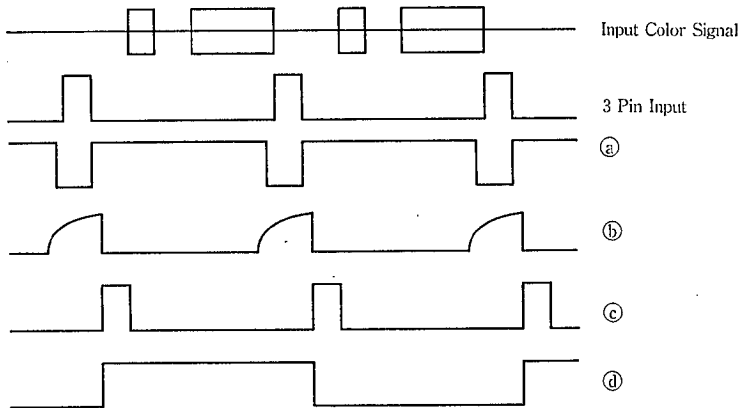
- AFC, M/M BLOCK

3 Pin input is Positive Composite Sync Signal

2, 4, 5 Pins' external circuit can lock both oscillation of 15.75kHz and sync signal.

Internal temperature coefficient is 0ppm, so please use low drift external parts, especially the condenser (560pF) of 4Pin should be 0ppm/°C

## ■ TIMING CHART



- SIGNAL DOUBLER BLOCK

3.58 (fsc)×2=7.16MHz generator

1 Pin: 100~200mV<sub>p-p</sub> input pin

18 Pin: about +0.6dB (GAIN) output pin

- SWI BLOCK

12 Pin: NTSC COLOR SIGNAL (100~200mV<sub>p-p</sub>) input pin

10 Pin: 45deg Phase shift Color Burst Signal output pin

- CONVERT/THROUGH, AMPLIFIER, ATT, SW2 BLOCK

16 Pin: NTSC Color Signal (Phase Shift Color Burst) input pin

17 Pin: 7.16MHz (fsc×2) input pin

M/PAL Signal is output from 13 Pin through the Amplifier and ATT Block.

## MEMO

[CAUTION]

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