

## Capstan/Drum Servo (continued)

| Type           | Function                      | Package       |             | Features  | Reference Catalog |
|----------------|-------------------------------|---------------|-------------|---|-------------------|
|                |                               | Configuration | No. of pins |   |                   |
| BA860          | Motor speed and phase control | DIP           | 16          | Terminal with motor speed switching function; FG amplifier extremely effective against noise; ideal for VHD.  | —                 |
| BU2780S Series | VTR digital servo             | DIPS          | 30          | Incorporates all the functions needed for VCR's servo system in a 30-pin package; cost-effective servo chip incorporating all necessary input amps.                     | —                 |
| BU2790S Series | VTR digital servo             | DIPS          | 42          | Versatile servo controller incorporating VISS, VASS linear time counter, and head SW logic in addition to the features of the BU2780; applicable to high-end equipment. | —                 |

## Special Playback

|                |                                  |        |    |  |   |         |
|----------------|----------------------------------|--------|----|--|---|---------|
| BAL6309        | Spurious V-pulse generator       | LF     | 16 | Capable of generating correction signals against defective V-pulse during special reproduction and processing defective H-phase correction signal in a single chip.  | No.3121   |         |
| BA855A/BA855AF | Fine still by noise transmission | DIP/MF | 20 | Sending off noises out of film for still. Consisting of spurious V-pulse generator and noise sending circuit.  | No.3121   |         |
| BA856          | Fine still by noise transmission | DIP    | 16 | The feedback-type fine still IC that detects drop-out signal corresponding to the noise bar.   | —   |         |
| BA857/BA857F   | Fine slow                        | DIP/MF | 18 | A built-in protective circuit is provided should the CTL signal not be reproduced. Monostable multivibrators are used for time settings, allowing external settings. | No.3121   |         |
| BA866F         | Fine slow                        | MF     | 18 |  | A version of the BA857/BA857F7 with modified fine-slow startup timing | —       |
| BA867          | Fine slow                        | DIP    | 18 |  | A version of the BA857/BA857F with modified frame lead interval       | No.3121 |
| BA862          | Fine slow                        | DIP    | 18 | Outputs the motor rotation direction, full torque, and current control signals necessary for noiseless slow and still. Also outputs a simple artificial V signal.    | No.3121   |         |
| BA875/BA875F   | Fine slow                        | DIP/MF | 28 | Outputs capstan motor control according to the time set by CTL signal during special playback such as slow, still and frame.   | —   |         |
| BA877LS        | Fine slow                        | LS     | 24 | Applicable to three heads. Has a motor operating period output to facilitate use with a DC forward/reverse motor.  | No.3121   |         |
| BA8420         | Fine slow                        | DIP    | 22 | Applicable to three heads. Has output terminals for an artificial V signal, rotary switching, head amplifier switching, and correction of horizontal jitter.         | No.3121   |         |
| BU2767S        | Fine slow                        | DIPS   | 32 | Generates fine slow and still signals for VTRs. Compatible with DA3/DA4 head VTRs.   | —   |         |
| BA7036LS       | Noiseless search                 | LS     | 24 | Noiseless playback signal by changing video playback FM signal by detection output level.  | —   |         |

## Sensor Amplifiers

|                |                     |        |    |  |         |
|----------------|---------------------|--------|----|--|---------|
| BA873          | Reel sensor         | DIP    | 16 | Rotating direction of reel motor can be detected by the input of hall device component.  | No.2700 |
| BA6305/BA6305F | FG/CTL amplifier    | SIP/MF | 8  | Capable of high-speed response for disturbance free picturing. The CTL signal can be regenerated as a short waveform during recording.   | No.2962 |
| BA6405         | FG/CTL amplifier    | DIP    | 14 | High open gain FG/CTL amplifier with built-in Schmitt amplifier and comparator.  | No.3121 |
| BA6325F        | Sensor for 8mm-VTRs | MF     | 24 | Wide supply voltage range (4.25~13V). Low current consumption (2.5mA, Typ.). Built-in dew sensor amplifier, reel motor rotation detector and battery voltage checker.                        | —       |
| BA6360         | Tape end sensor     | DIP    | 14 | Capable of detecting the head and end of the VTR tape. Built-in comparator for dew sensor.   | —       |
| BA7750AL       | Cue detection       | LF     | 18 | Recording amplifier that permits large current drive; mode switching and detection signal output are performed with one input/output terminal to permit easy interfacing with microcomputer. | No.3121 |

## Others

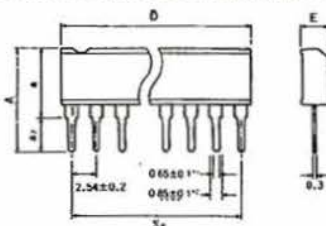
|         |                       |    |    |  |         |
|---------|-----------------------|----|----|--|---------|
| BA6320L | Power hold            | LF | 16 | Capable of power on/off control that is interacted with the state of the system control microcomputer.   | —       |
| BAL872  | Reel motor controller | LF | 16 | Outputs reference voltage for voltage control and current control with an accuracy of $\pm 5\%$ according to the output from a microcomputer or a mechanical control unit by two D/A converters. | No.3121 |

## • Audio Signal Processing

|                           |                                    |               |           |  |                |
|---------------------------|------------------------------------|---------------|-----------|--|----------------|
| BA5102A/BA5102AF/BA5102AL | Switchless REC/PB amplifier        | DIP/MF/LF     | 18        | Includes all required VTR audio signal REC/PB amplifiers functions. Low pop noise accompanying switching.                                | No.3121        |
| BA5114LS                  | Switchless REC/PB amplifier        | LS            | 24        | Includes all audio amplifiers for the VTR sound signal system. Applicable to noise reduction systems. Included in a shrink-type package. | No.3121        |
| <b>BA5115/BA5115L</b>     | <b>Switchless REC/PB amplifier</b> | <b>DIP/LF</b> | <b>18</b> | <b>Includes all audio amplifiers for the VTR sound signal system. Few external components.</b>   | <b>No.3121</b> |

Dimensions (Unless otherwise specified, dimensions are shown in Typ. values.)

SIP

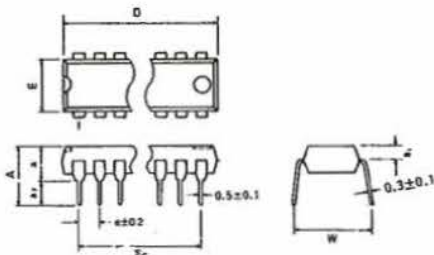


• SIP Dimensions (Unit: mm)

| Package | A    | a   | a <sub>2</sub> | D    | Σe    | E   |
|---------|------|-----|----------------|------|-------|-----|
| SIP 5   | 9.7  | 6.2 | 3.5            | 12.0 | 10.16 | 2.4 |
| SIP 7   | 9.7  | 6.2 | 3.5            | 17.0 | 15.24 | 2.8 |
| SIP 8   | 10.5 | 7.0 | 3.5            | 19.5 | 17.78 | 2.8 |
| SIP 9   | 10.5 | 7.0 | 3.5            | 22.0 | 20.32 | 2.8 |
| SIP 10  | 10.5 | 7.0 | 3.5            | 25.2 | 22.86 | 2.8 |

\*1 SIP 10pin: 0.6 \*2 SIP 10pin: 0.8

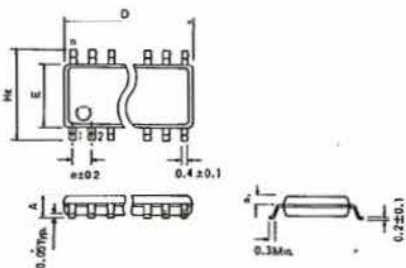
DIP/DIPS



• DIP Dimensions (Unit: mm)

| Package | A    | a    | a <sub>1</sub> | a <sub>2</sub> | D    | e     | Σe     | E    | W    |
|---------|------|------|----------------|----------------|------|-------|--------|------|------|
| DIP 8   | 6.8  | 3.6  | 1.1            | 3.2            | 9.3  | 2.54  | 7.62   | 6.5  | 8.8  |
| DIP 14  | 6.94 | 3.65 | 1.65           | 3.29           | 19.4 | 2.54  | 15.24  | 6.5  | 8.8  |
| DIP 16  | 6.94 | 3.65 | 1.65           | 3.29           | 19.4 | 2.54  | 17.78  | 6.5  | 8.8  |
| DIP 18  | 6.94 | 3.65 | 1.65           | 3.29           | 22.9 | 2.54  | 20.32  | 6.5  | 8.8  |
| DIP 20  | 7.09 | 3.65 | 1.65           | 3.44           | 26.3 | 2.54  | 22.86  | 6.5  | 8.8  |
| DIP 22  | 7.09 | 3.65 | 1.65           | 3.44           | 26.3 | 2.54  | 25.40  | 6.5  | 8.8  |
| DIP 24  | 7.51 | 4.22 | 1.8            | 3.29           | 32.0 | 2.54  | 27.94  | 13.8 | 16.5 |
| DIP 28  | 7.51 | 4.22 | 1.8            | 3.29           | 37.1 | 2.54  | 33.02  | 13.8 | 16.5 |
| DIP 40  | 7.7  | 4.5  | 1.8            | 3.2            | 52.3 | 2.54  | 48.26  | 13.8 | 16.5 |
| DIPS 18 | 7.35 | 3.65 | 1.65           | 3.7            | 19.4 | 1.778 | 14.224 | 6.5  | 8.8  |
| DIPS 22 | 7.35 | 3.65 | 1.65           | 3.7            | 19.4 | 1.778 | 17.78  | 6.5  | 8.8  |
| DIPS 24 | 7.4  | 4.0  | 1.7            | 3.4            | 22.8 | 1.778 | 19.558 | 6.5  | 8.8  |
| DIPS 30 | 7.9  | 4.7  | 1.7            | 3.2            | 28.0 | 1.778 | 24.892 | 8.4  | 11.4 |
| DIPS 32 | 7.9  | 4.7  | 1.7            | 3.2            | 28.0 | 1.778 | 26.67  | 8.4  | 11.4 |
| DIPS 42 | 7.7  | 4.5  | 1.8            | 3.2            | 37.1 | 1.778 | 35.56  | 13.8 | 16.5 |

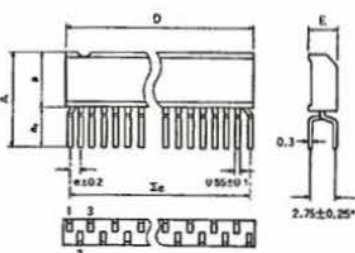
MF/MFS/MFP



• MF Dimensions (Unit: mm)

| Package | A   | a <sub>1</sub> | D    | Hc  | e    | E   |
|---------|-----|----------------|------|-----|------|-----|
| MF 8    | 1.5 | 0.65           | 5.0  | 6.2 | 1.27 | 4.4 |
| MF 14   | 1.5 | 0.65           | 8.7  | 8.2 | 1.27 | 4.4 |
| MF 16   | 1.5 | 0.65           | 10.0 | 8.2 | 1.27 | 4.4 |
| MF 18   | 1.8 | 0.8            | 11.2 | 7.8 | 1.27 | 5.4 |
| MF 20   | 1.8 | 0.8            | 12.5 | 7.8 | 1.27 | 5.4 |
| MF 22   | 1.8 | 0.8            | 13.7 | 7.8 | 1.27 | 5.4 |
| MF 24   | 1.8 | 0.8            | 15.0 | 7.8 | 1.27 | 5.4 |
| MF 28   | 2.2 | 1.0            | 18.5 | 9.9 | 1.27 | 7.5 |
| MFS 16  | 1.5 | 0.65           | 6.6  | 6.2 | 0.8  | 4.4 |
| MFS 20  | 1.8 | 0.8            | 8.7  | 7.8 | 0.8  | 5.4 |
| MFS 24  | 1.8 | 0.8            | 10.0 | 7.8 | 0.8  | 5.4 |
| MFP 24  | 1.9 | 0.8            | 13.7 | 7.8 | 0.8  | 5.4 |
| MFP 28  | 2.2 | 0.95           | 18.5 | 9.9 | 0.8  | 7.5 |

LF/LFS

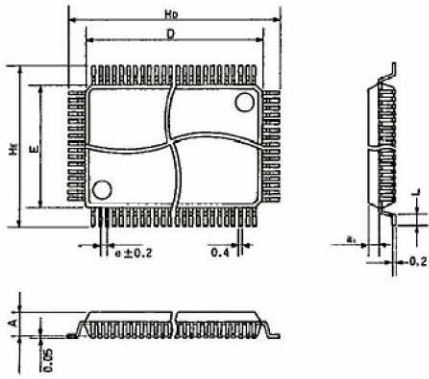


• LF Dimensions (Unit: mm)

| Package | A    | a   | a <sub>2</sub> | D    | Σe     | e     | E   |
|---------|------|-----|----------------|------|--------|-------|-----|
| LF 9    | 9.8  | 5.0 | 4.8            | 12.0 | 10.16  | 1.27  | 2.4 |
| LF 12   | 9.8  | 5.0 | 4.8            | 17.0 | 13.97  | 1.27  | 2.8 |
| LF 16   | 9.9  | 5.8 | 4.1            | 19.5 | 19.05  | 1.27  | 2.8 |
| LF 18   | 9.9  | 5.8 | 4.1            | 22.0 | 21.59  | 1.27  | 2.8 |
| LFS 24  | 10.0 | 5.8 | 4.2            | 22.0 | 20.447 | 0.889 | 2.8 |

\*LFS 24: 2.54±0.25

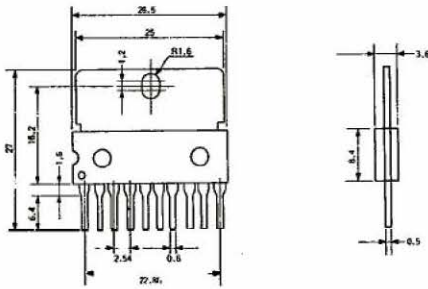
QFP/QFPS



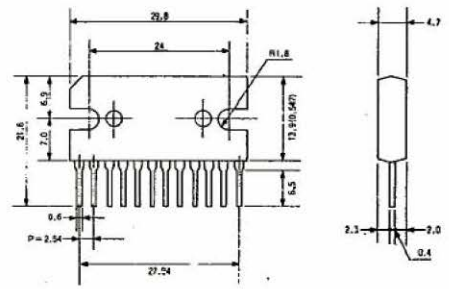
• QFP Dimensions (Unit: mm)

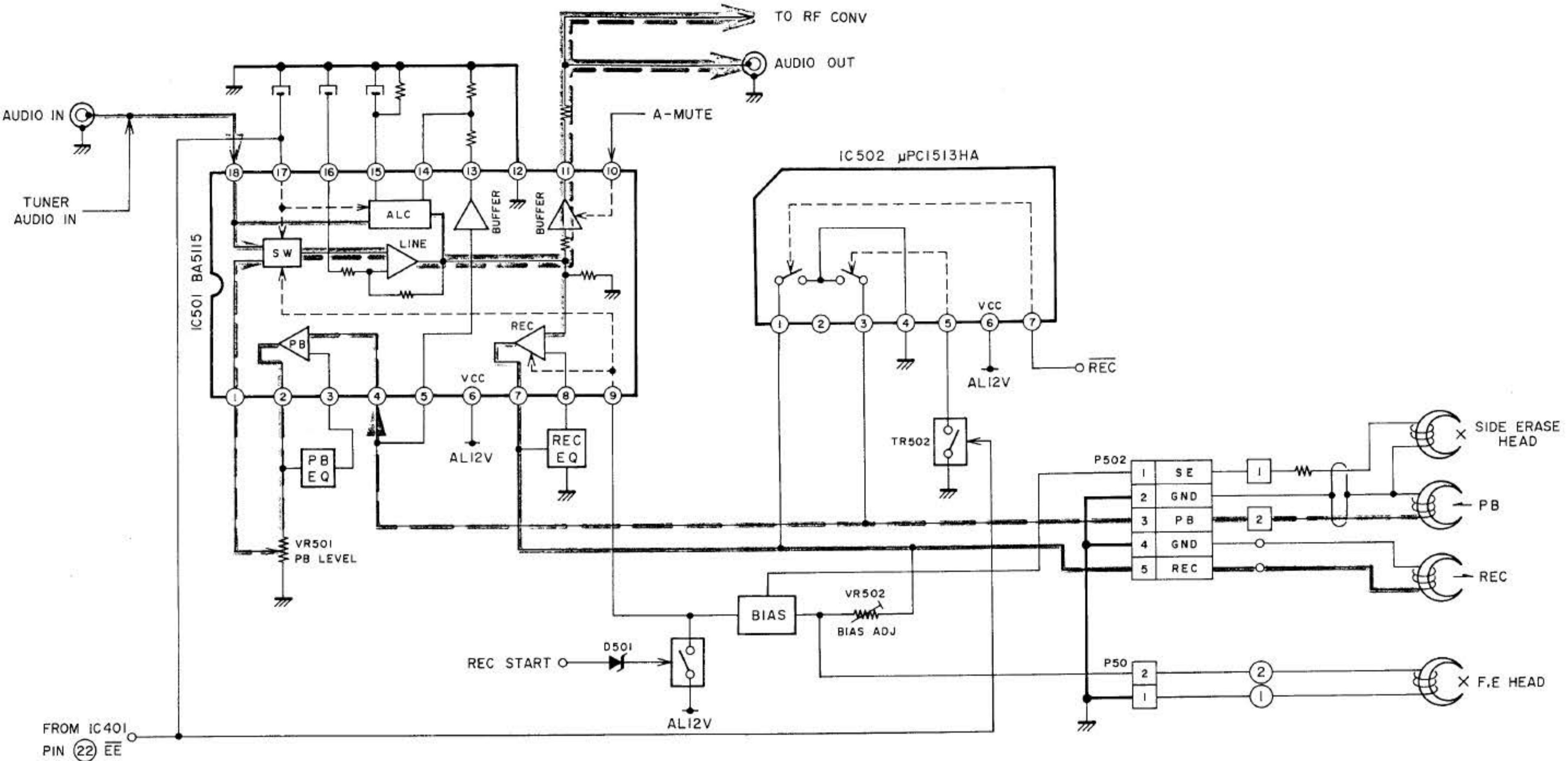
| Package  | A    | a <sub>1</sub> | D    | e    | E    | H <sub>E</sub> | H <sub>D</sub> | L   |
|----------|------|----------------|------|------|------|----------------|----------------|-----|
| QFP 32   | 1.45 | 0.65           | 7.0  | 0.8  | 7.0  | 9.0            | 9.0            | 0.4 |
| QFP 44   | 2.15 | 1.0            | 10.0 | 0.8  | 10.0 | 14.0           | 14.0           | 1.2 |
| QFP 64   | 2.15 | 1.0            | 20.0 | 1.0  | 14.0 | 18.0           | 24.0           | 1.2 |
| QFP 80   | 2.7  | 1.275          | 20.0 | 0.8  | 14.0 | 18.0           | 24.0           | 1.2 |
| QFPS 56  | 2.15 | 1.0            | 10.0 | 0.65 | 10.0 | 12.4           | 12.4           | 0.5 |
| QFPS 80  | 2.7  | 1.275          | 14.0 | 0.65 | 14.0 | 16.4           | 16.4           | 0.5 |
| QFPS 100 | 2.7  | 1.275          | 20.0 | 0.65 | 14.0 | 18.0           | 24.0           | 1.2 |

SIP-P 10 pin



SIP-P 12 pin





- - - - - PB SIGNAL  
 \_\_\_\_\_ REC SIGNAL

VS-112 EG/EK/EA/ED  
 EV-M/EZ/ES  
 VS-105 EK  
 VS-115 E0/E0(Y1)  
 VS-116 E0-G  
 AUDIO  
 BLOCK DIAGRAM  
 NO.5-2 860103A (A3)

FROM IC401  
PIN 22 EE