



Monolithic ICs

T-77-21



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 feed 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 |

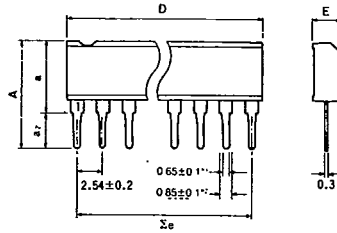
• Audio Signal Processing

| | | | | | |
|-------------------------------|-----------------------------|---------------|----|--|---------|
| 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 |
| BA5115/BA5115L | Switchless REC/PB amplifier | DIP/LF | 18 | Includes all audio amplifiers for the VTR sound signal system. Few external components. | No.3121 |



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

SIP

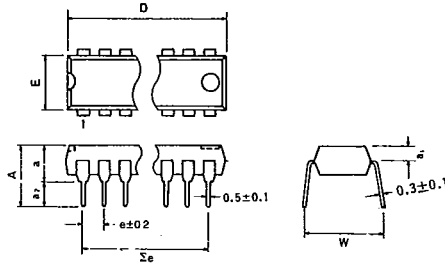


• SIP Dimensions (Unit: mm)

| Package | A | a | a ₂ | 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

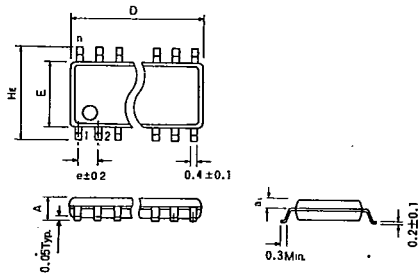
DIP/DIPS



• DIP Dimensions (Unit: mm)

| Package | A | a | a ₁ | a ₂ | 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 | 32.0 | 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 |

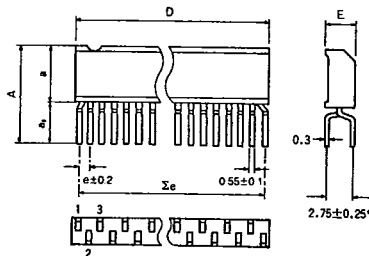
MF/MFS/MFP



• MF Dimensions (Unit: mm)

| Package | A | a ₁ | D | H _E | e | E |
|---------|-----|----------------|------|----------------|------|-----|
| MF 8 | 1.5 | 0.65 | 5.0 | 6.2 | 1.27 | 4.4 |
| MF 14 | 1.5 | 0.65 | 8.7 | 6.2 | 1.27 | 4.4 |
| MF 16 | 1.5 | 0.65 | 10.0 | 6.2 | 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 ₂ | 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

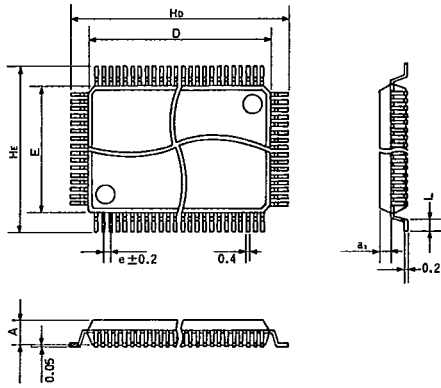


Monolithic ICs



T-90-20

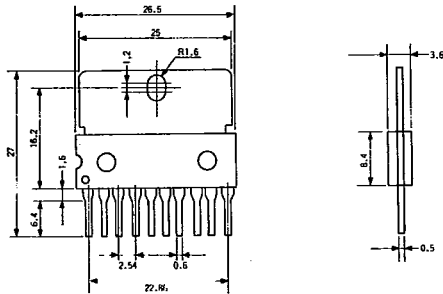
QFP/QFPS



• QFP Dimensions (Unit: mm)

| Package | A | a_1 | D | e | E | H_E | H_D | 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

