

DATA SHEET

| | |
|------------------|----------------------|
| Part No. | AN5832SA |
| Package Code No. | SSOP032 - P - 0300AP |

SEMICONDUCTOR COMPANY
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

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AN5832SA

Silicon Monolithic Bipolar IC

■ Features

- Supports both I²C bus and parallel control
- Integrated SIF demodulation
- Fully adjustment - free (when used with SIF input)
2 adjustment points when used with baseband input
- Integrated voice AGC circuit
- Reduced peripheral component count
- Low power consumption (typ. $V_{CC} = 5\text{ V}$, $I_{TOT} = 28\text{ mA}$)
- Near pin to pin compatible with AN5833SA (Japanese TV audio multiplex demodulation IC)

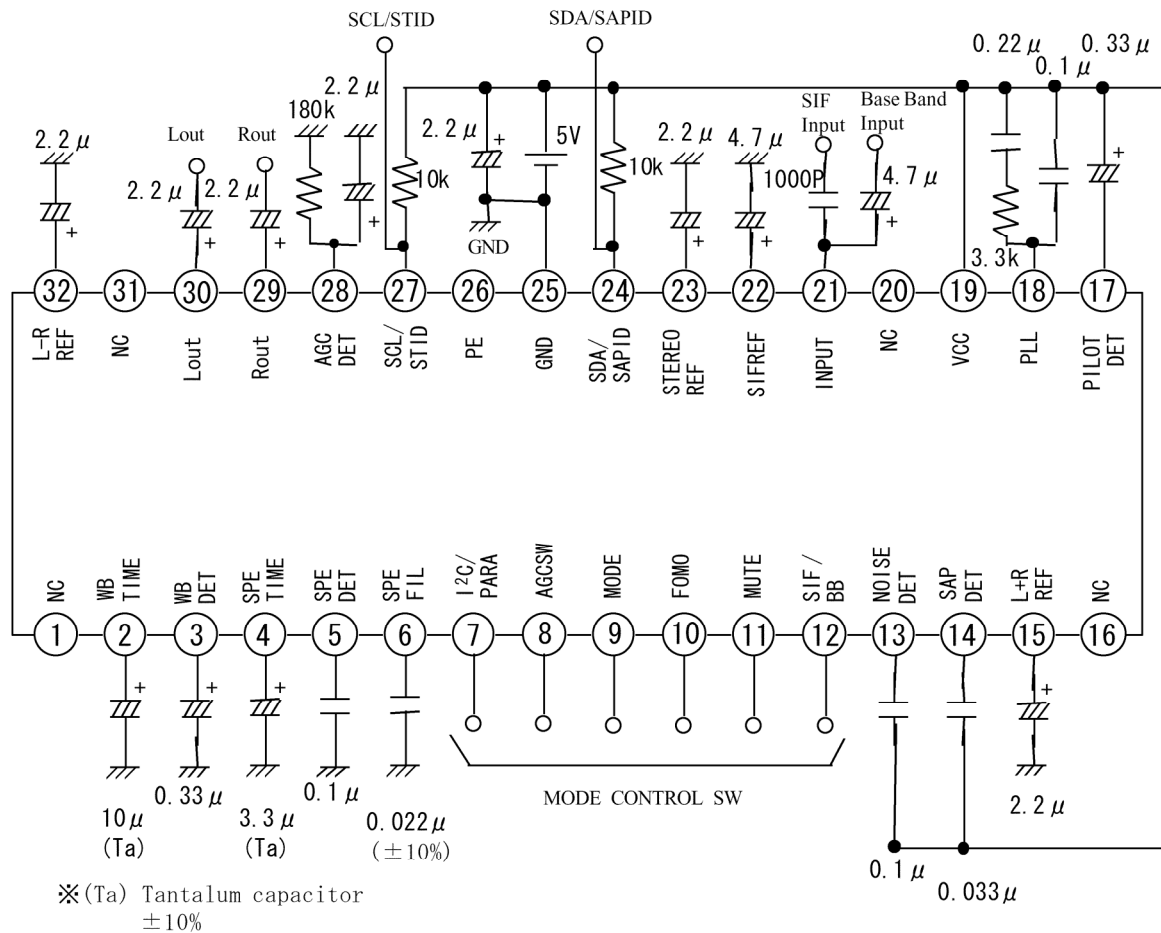
■ Applications

- TV sets, VCRs, DVD recorders, PCs, car navigation systems, and similar products for US market

■ Package

- DIL-32PIN Plastic Package (SO Type)

■ Application Circuit

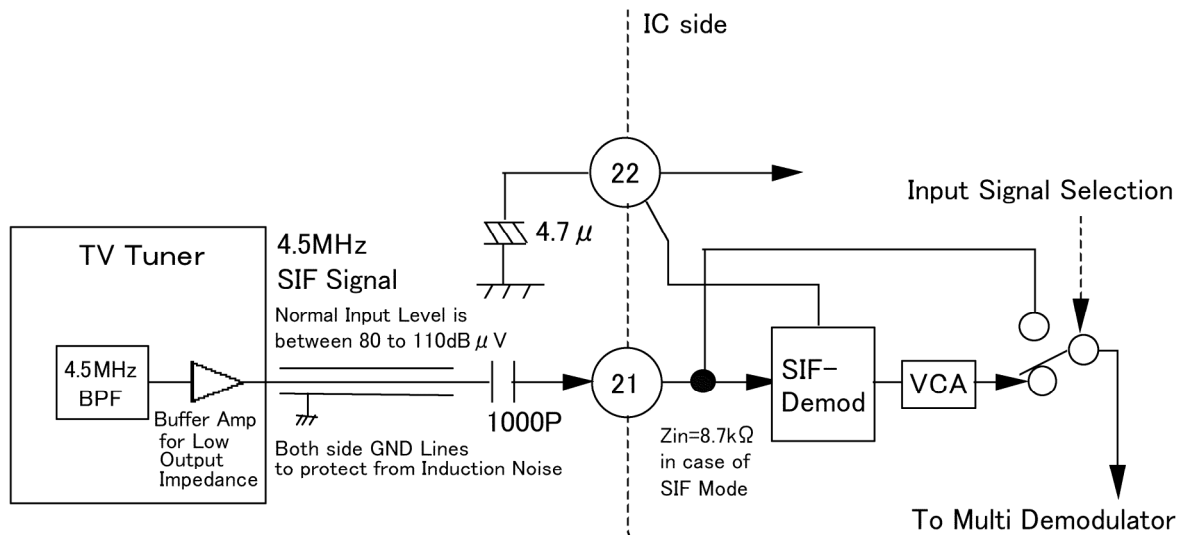


< Instructions of Application Circuits >

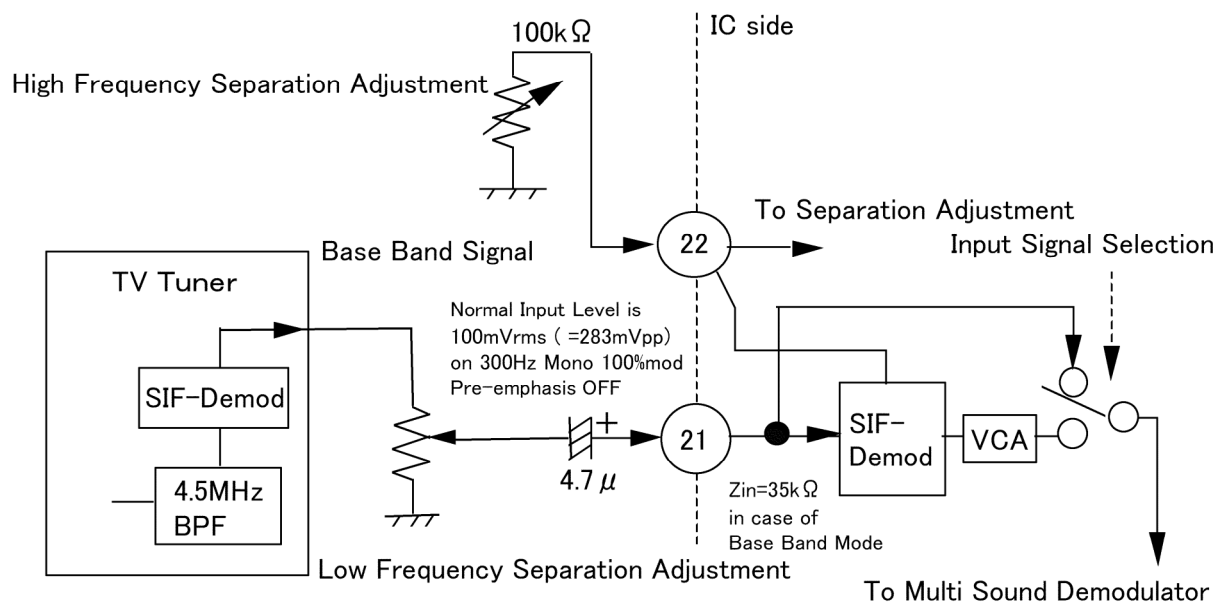
- 1) In case of using base band input, ICs were adjusted to perform good separation when input level is mismatched with 100 mV[rms] (= 283 mV[p-p]) on condition of mono 100% mod pre-emphasis OFF.
However, if good enough separation can't be taken in the cause of un-matching frequency characteristic and so in input signal, it can adjust separation by connecting a volume between #22Pin and GND for adjusting high frequency separation.
If it not need adjusting separation, please open #22Pin.
If it need adjusting low frequency separation also, please adjust the input level volume for taking best separation on low frequency.
- 2) In case of using SIF input, please set up the SIF input level from tuners between 80 dBμV to 110 dBμV in standard RF input conditions. Please select SIF - BPFs that group delay of 4.5 MHz \pm 42 kHz is flat as possible.
- 3) In measuring characteristics of separation, please use the stereo modulator that perform good characteristic on dbx encoder and corrected well.
In case of using SIF input, please correct FM modulation band to \pm 25 kHz exactly at mono 100% mod pre-emphasis OFF with the 0 carrier method.
And, please use LPFs that reduce 30 kHz signal over 20 dB setting between line-outs and AB level meter

■ Application Circuit (continued)

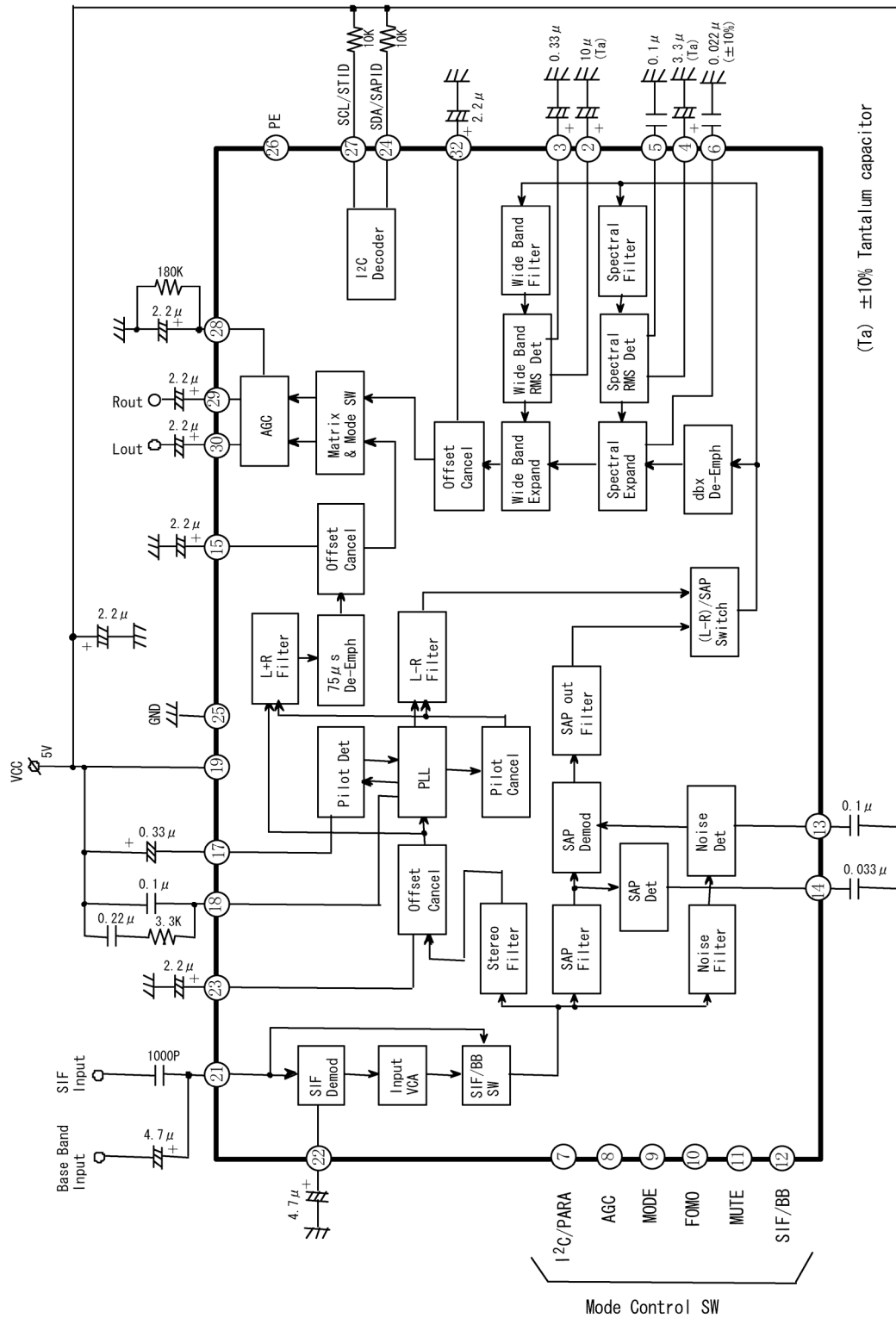
(1) Example of No Adjustments Application Circuits in case of SIF Input



(2) Example of Adjustments Application Circuits in case of Base Band Input



■ Block Diagram



■ Pin Descriptions

| Pin No. | Function |
|---------|-------------------------------|
| 1 | N. C. |
| 2 | Wide band timing |
| 3 | Wide band DET |
| 4 | Wide band DET |
| 5 | Spectral DET |
| 6 | Spectral DET |
| 7 | I ² C Spectral DET |
| 8 | Spectral DET |
| 9 | MODE SW |
| 10 | Force monaural SW |
| 11 | Mute SW |
| 12 | SIF / Base band SW |
| 13 | SAP Noise DET |
| 14 | SAP DET |
| 15 | L + R REF |
| 16 | N. C. |
| 17 | Pilot DET |
| 18 | Stereo PLL filter |
| 19 | V _{CC} |
| 20 | N. C. |
| 21 | SIF IN |
| 22 | SIF REF |
| 23 | STEREO REF |
| 24 | SDA / SAPID |
| 25 | Ground |
| 26 | PE |
| 27 | SCL / STID |
| 28 | AGC DET |
| 29 | Right - channel output |
| 30 | Left - channel output |
| 31 | N. C. |
| 32 | L - R REF |

■ Absolute Maximum Ratings

| No. | Parameter | Symbol | Rating | Unit | Note |
|-----|--|------------------|--|------------------|--------------------------|
| 1 | Storage temperature | T_{stg} | −55 to +125 | °C | *1 |
| 2 | Operating ambient temperature | T_{opr} | −20 to +85 | °C | *1 |
| 3 | Operating ambient atmospheric pressure | P_{opr} | $1.013 \times 10^5 \pm 0.61 \times 10^5$ | Pa | |
| 4 | Operating constant gravity | G_{opr} | 9 810 | m/s ² | |
| 5 | Operating shock | S_{opr} | 4 900 | m/s ² | |
| 6 | Supply voltage | V_{CC} | 6.0 | V | |
| 7 | Supply current | I_{CC} | 38 | mA | |
| 8 | Power dissipation | P_{D} | 228 | mW | $T_a = 85^\circ\text{C}$ |

Note) *1 : $T_a = 25^\circ\text{C}$ except storage temperature, and operating ambient temperature.

*2 : To use this products including dbx - TV noise reduction need the license agreement with THAT corporation.

■ Operating Supply Voltage Range

| | | |
|--------------------------------|-----------------|----------------|
| Operating supply voltage range | V_{CC} | 4.5 V to 5.5 V |
|--------------------------------|-----------------|----------------|

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