

# DATA SHEET

|                  |            |
|------------------|------------|
| Part No.         | AN15525A   |
| Package Code No. | T0220 - 7A |

SEMICONDUCTOR COMPANY  
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

Contents

- Overview ..... 3
- Features ..... 3
- Applications ..... 3
- Package ..... 3
- Application Circuit ..... 4
- Block Diagram ..... 6
- Pin Descriptions ..... 6
- Absolute Maximum Ratings ..... 7
- Operating Supply Voltage Range ..... 7

# AN15525A

## Silicon Monolithic Bipolar IC

### ■ Overview

AN15525A are ICs for CRT vertical deflection output. AN15525A can directly drive a deflection coil with saw wave output from a signal processing IC.

With its maximum output current of 2 A[p-p], AN15525A are suitable for the use of driving of 21 inch to 29 inch monitors.

### ■ Features

- Vertical output circuit
- Built-in pump up circuit
- Built-in thermal protection circuit
- Absolute maximum rating 80 V
- Maximum output current 2 A[p-p]

### ■ Applications

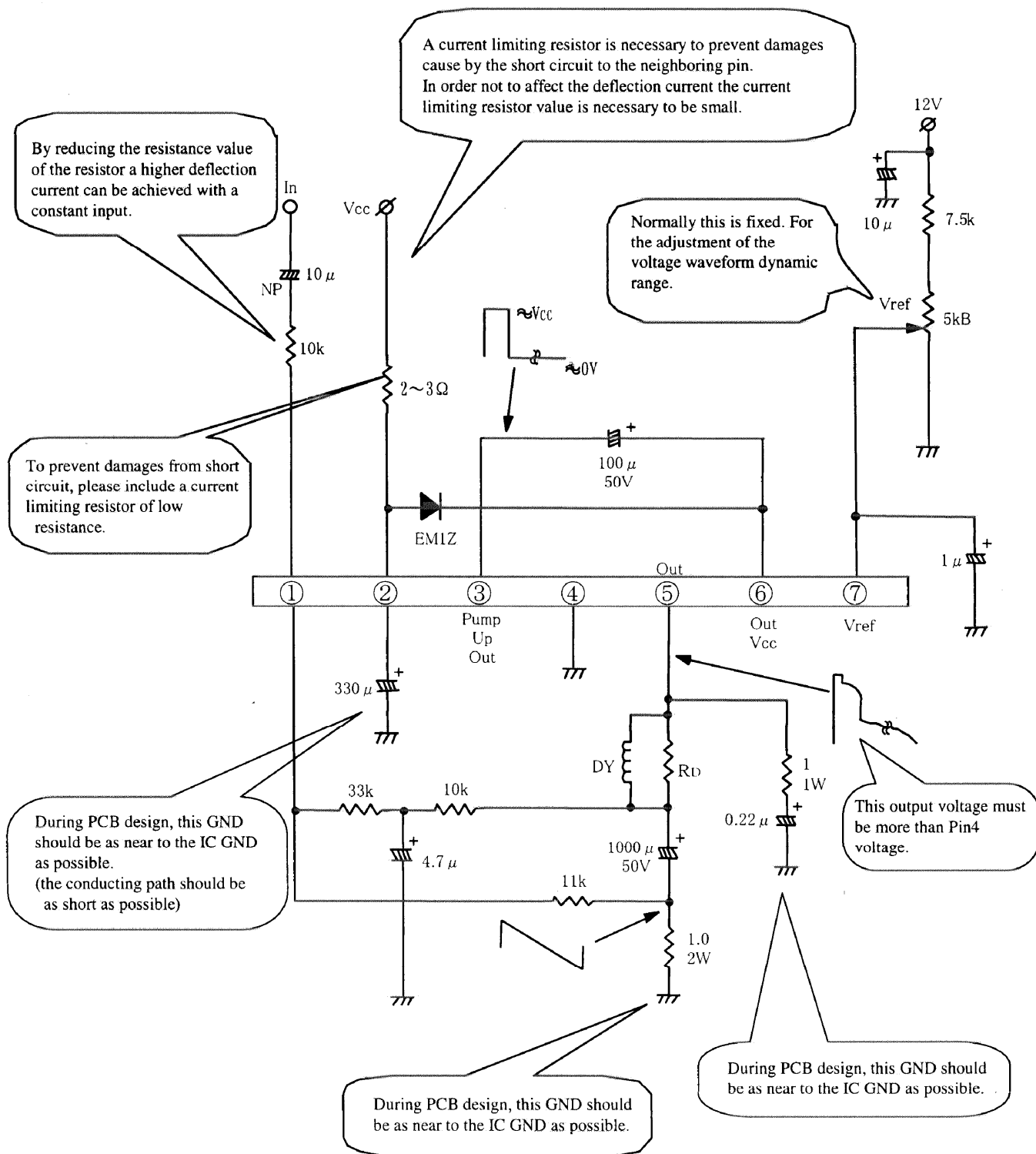
- CRT vertical output
- TV sets and displays

### ■ Package

- T0220 - 7pin plastic package with Fin

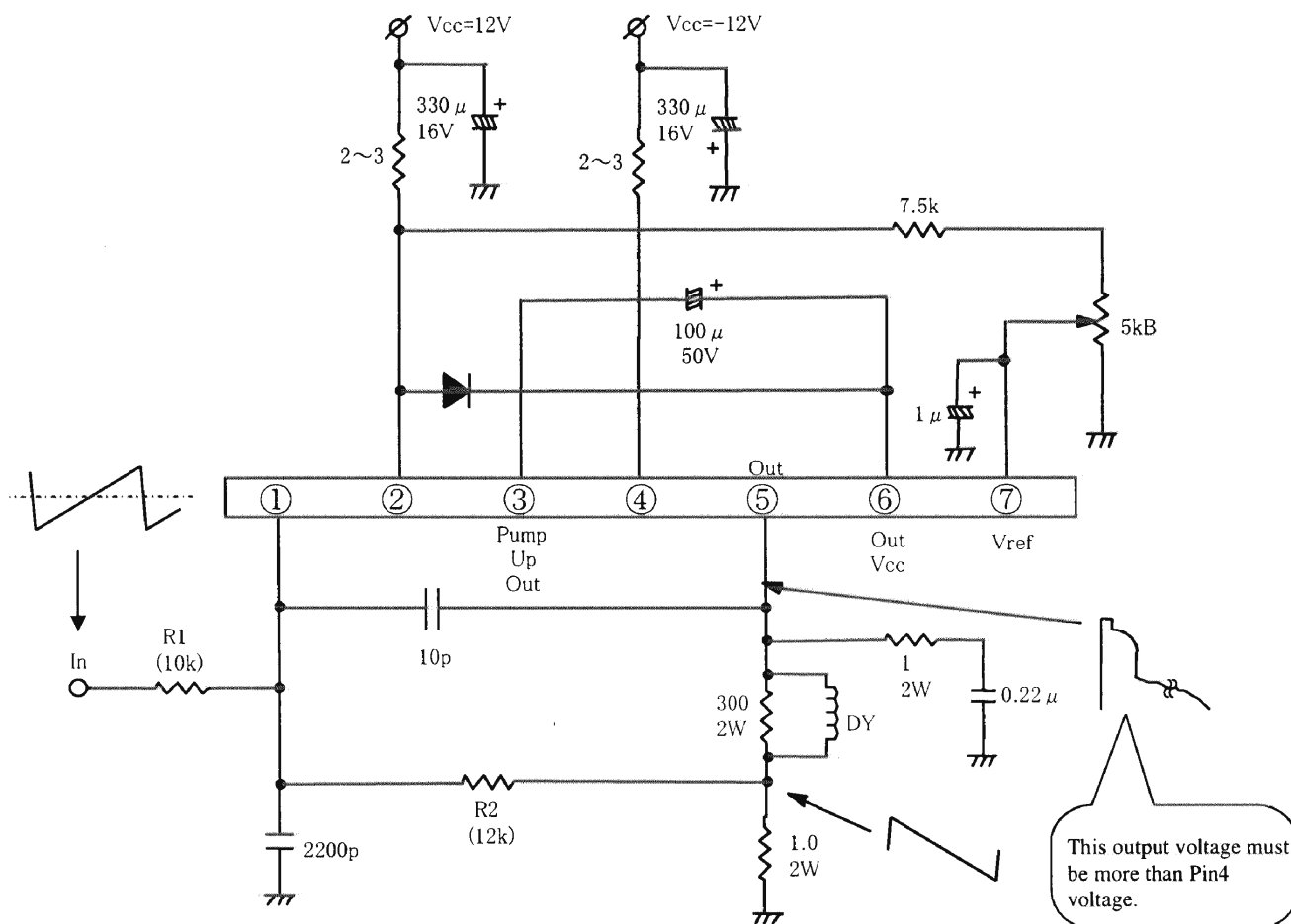
# ■ Application Circuit • AC Coupling

## Application Circuit AC Coupling



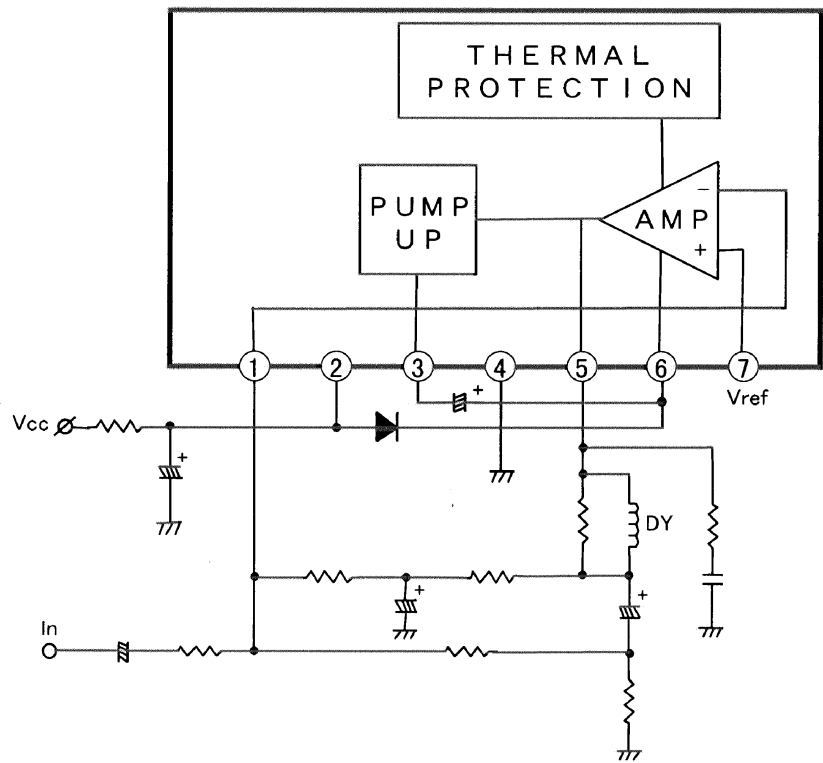
# Application Circuit ( continued )

- DC Coupling



In order to get required gain, it is necessary to adjust the  $R1$  and  $R2$ .

■ Block Diagram



■ Pin Descriptions

| Pin No. | Pin name                     |
|---------|------------------------------|
| 1       | Inverting input              |
| 2       | Power supply                 |
| 3       | Pump - up output             |
| 4       | GND                          |
| 5       | Vertical output              |
| 6       | Vertical output power supply |
| 7       | Non - inverting input        |

### ■ Absolute Maximum Ratings

| No. | Parameter                              | Symbol             | Rating                                   |           | Unit             | Note |
|-----|----------------------------------------|--------------------|------------------------------------------|-----------|------------------|------|
| 1   | Storage temperature                    | $T_{\text{stg}}$   | -55 to +150                              |           | °C               | *1   |
| 2   | Operating ambient temperature          | $T_{\text{opr}}$   | -20 to +70                               |           | °C               | *1   |
| 3   | Operating ambient atmospheric pressure | $P_{\text{opr}}$   | $1.013 \times 10^5 \pm 0.61 \times 10^5$ |           | Pa               |      |
| 4   | Operating constant gravity             | $G_{\text{opr}}$   | 9 810                                    |           | m/S <sup>2</sup> |      |
| 5   | Operating shock                        | $S_{\text{opr}}$   | 4 900                                    |           | m/S <sup>2</sup> |      |
| 6   | Supply voltage                         | $V_{\text{CC2}}$   | 35                                       |           | V                |      |
| 7   | Supply current                         | $I_{\text{CC2}}$   | 360                                      |           | mA               |      |
| 8   | Power dissipation                      | $P_{\text{D}}$     | 1.5                                      |           | W                | *2   |
| 9   | Circuit voltage                        | $V_{5-4}, V_{6-4}$ | 0                                        | 80        | V                |      |
| 10  | Circuit voltage                        | $V_{7-4}, V_{1-4}$ | 0                                        | $V_{2-4}$ | V                |      |
| 11  | Circuit current                        | $I_5, I_3$         | -1.5                                     | 1.5       | A[0-p]           |      |

Note ) \*1 : Except for the operating ambient temperature and storage temperature, all ratings are for  $T_a = 25^\circ\text{C}$

\*2 : The power dissipation shall be at  $T_a = 70^\circ\text{C}$  in free air, without heat sink. ( refer to sheet no. 12 )

### ■ Operating Supply Voltage Range

|                                |                     |               |
|--------------------------------|---------------------|---------------|
| Operating supply voltage range | $V_{\text{CC2}}$    | 12 V to 30 V  |
| Deflection output current      | $I_{5[\text{p-p}]}$ | to 2.0 A[p-p] |

## Request for your special attention and precautions in using the technical information and semiconductors described in this material

- (1) An export permit needs to be obtained from the competent authorities of the Japanese Government if any of the products or technical information described in this material and controlled under the "Foreign Exchange and Foreign Trade Law" is to be exported or taken out of Japan.
- (2) The technical information described in this material is limited to showing representative characteristics and applied circuits examples of the products. It neither warrants non-infringement of intellectual property right or any other rights owned by our company or a third party, nor grants any license.
- (3) We are not liable for the infringement of rights owned by a third party arising out of the use of the technical information as described in this material.
- (4) The products described in this material are intended to be used for standard applications or general electronic equipment (such as office equipment, communications equipment, measuring instruments and household appliances).  
Consult our sales staff in advance for information on the following applications:
  - Special applications (such as for airplanes, aerospace, automobiles, traffic control equipment, combustion equipment, life support systems and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.
  - Any applications other than the standard applications intended.
- (5) The products and product specifications described in this material are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most up-to-date Product Standards in advance to make sure that the latest specifications satisfy your requirements.
- (6) When designing your equipment, comply with the guaranteed values, in particular those of maximum rating, the range of operating power supply voltage, and heat radiation characteristics. Otherwise, we will not be liable for any defect which may arise later in your equipment.  
Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.
- (7) When using products for which damp-proof packing is required, observe the conditions (including shelf life and amount of time let standing of unsealed items) agreed upon when specification sheets are individually exchanged.
- (8) This material may be not reprinted or reproduced whether wholly or partially, without the prior written permission of Matsushita Electric Industrial Co., Ltd.