

# 2SA673, 2SA673A

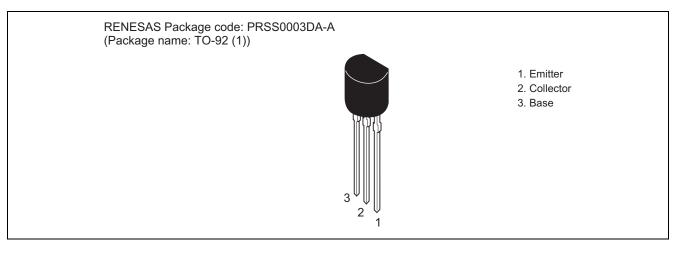
Datasheet

Jun 07, 2011

## Application

- Low frequency amplifier
- Complementary pair with 2SC1213 and 2SC1213A

#### Outline



## Absolute Maximum Ratings

|                              |                  |             |             | $(Ta = 25^{\circ}C)$ |
|------------------------------|------------------|-------------|-------------|----------------------|
| Item                         | Symbol           | 2SA673      | 2SA673A     | Unit                 |
| Collector to base voltage    | V <sub>CBO</sub> | -35         | -50         | V                    |
| Collector to emitter voltage | V <sub>CEO</sub> | -35         | -50         | V                    |
| Emitter to base voltage      | V <sub>EBO</sub> | -4          | -4          | V                    |
| Collector current            | Ι <sub>C</sub>   | -500        | -500        | mA                   |
| Collector power dissipation  | Pc               | 400         | 400         | mW                   |
| Junction temperature         | Tj               | 150         | 150         | °C                   |
| Storage temperature          | Tstg             | -55 to +150 | -55 to +150 | °C                   |



# **Electrical Characteristics**

 $(Ta = 25^{\circ}C)$ 

| ltem                                      | Symbol -                       | 2SA673 |       | 2SA673A |     | 11    | Test conditions |      |   |
|---|--------------------------------|--------|-------|---------|-----|-------|-----------------|------|---|
|   |                                | Min    | Тур   | Max     | Min | Тур   | Max             | Unit | Test conditions   |
| Collector to base<br>breakdown voltage    | V <sub>(BR)CBO</sub>           | -35    | _     |         | -50 | _     | _               | V    | $I_{C} = -10 \ \mu A, I_{E} = 0$                            |
| Collector to emitter<br>breakdown voltage | V <sub>(BR)CEO</sub>           | -35    | —     |         | -50 | —     | —               | V    | $I_C = -1 \text{ mA}, R_{BE} = \infty$                      |
| Emitter to base<br>breakdown voltage      | V <sub>(BR)EBO</sub>           | -4     | —     |         | -4  | —     | —               | V    | $I_E = -10 \ \mu A, \ I_C = 0$                              |
| Collector cutoff current                  | I <sub>CBO</sub>               | _      |       | -0.5    | _   | —     | -0.5            | μA   | $V_{CB} = -20 V, I_E = 0$                                   |
| Collector to emitter saturation voltage   | V <sub>CE(sat)</sub>           | —      | -0.2  | -0.6    | —   | -0.2  | -0.6            | V    | $I_{C} = -150 \text{ mA},$<br>$I_{B} = -15 \text{ mA}*^{2}$ |
| DC current transfer ratio                 | h <sub>FE</sub> * <sup>1</sup> | 60     | —     | 320     | 60  | —     | 320             |      | $V_{CE} = -3 V,$<br>$I_{C} = -10 \text{ mA}$                |
| DC current transfer ratio                 | h <sub>FE</sub>                | 10     | —     | —       | 10  | —     | —               |      | $V_{CE} = -3 V,$<br>$I_{C} = -500 \text{ mA}^{*2}$          |
| Base to emitter voltage                   | V <sub>BE</sub>                | _      | -0.64 | _       | _   | -0.64 | _               | V    | V <sub>CE</sub> = -3 V,<br>I <sub>C</sub> =-10 mA           |

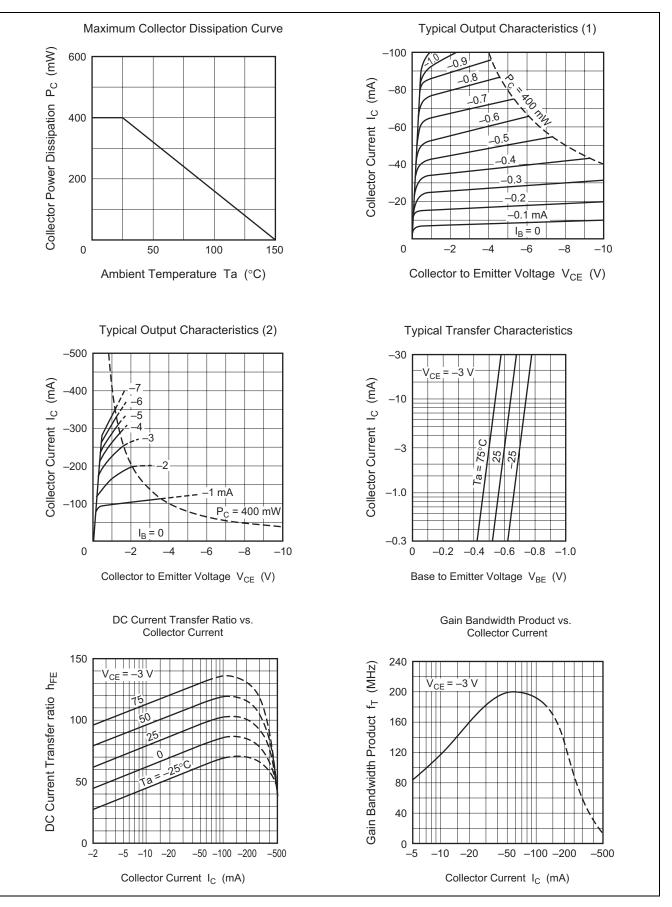
Notes: 1. The 2SA673 and 2SA673A are grouped by  $h_{FE}$  as follows.

Pulse test

| В         | С          | D          |
|-----------|------------|------------|
| 60 to 120 | 100 to 200 | 160 to 320 |

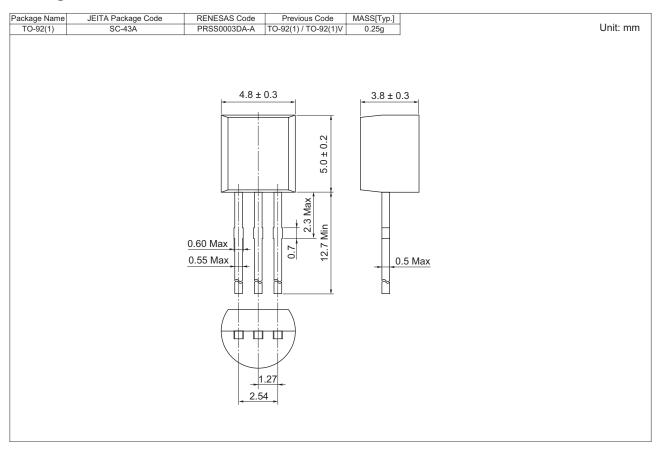


#### **Main Characteristics**





## **Package Dimensions**

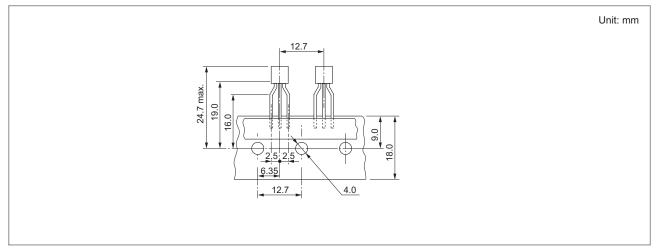


## **Ordering Information**

| Part Name    | Quantity | Shipping Container      |
|--------------|----------|-------------------------|
| 2SA673BTZ-E  | 2500     | Hold Box, Radial Taping |
| 2SA673CTZ-E  |          |                         |
| 2SA673DTZ-E  |          |                         |
| 2SA673ABTZ-E |          |                         |
| 2SA673ACTZ-E |          |                         |
| 2SA673ADTZ-E |          |                         |

Notes: 1. For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

2. Leads is forming applied as following figure.





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