

# HIT667 Silicon NPN Epitaxial

R07DS0450EJ0400 (Previous: REJ03G1505-0300)

Rev.4.00

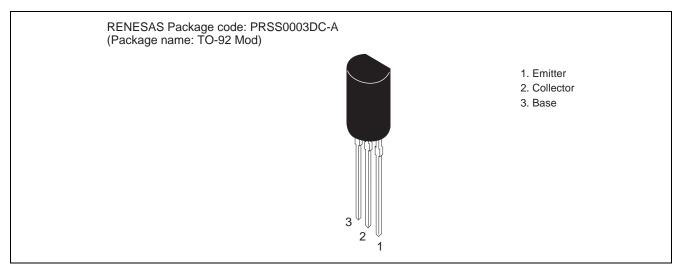
2500

Jun 14, 2011

Features

- Low frequency power amplifier
- Complementary pair with HIT647

#### Outline



## **Absolute Maximum Ratings**

|                              |                                      |             | $(Ta = 25^{\circ}C)$ |
|------------------------------|--------------------------------------|-------------|----------------------|
| Item                         | Symbol                               | Ratings     | Unit                 |
| Collector to base voltage    | V <sub>CBO</sub>                     | 120         | V                    |
| Collector to emitter voltage | V <sub>CEO</sub>                     | 100         | V                    |
| Emitter to base voltage      | V <sub>EBO</sub>                     | 6           | V                    |
| Collector current            | Ι <sub>C</sub>                       | 1.0         | А                    |
| Collector peak current       | I <sub>C (peak)</sub> * <sup>1</sup> | 2.0         | А                    |
| Collector power dissipation  | Pc                                   | 0.9         | W                    |
| Junction temperature         | Tj                                   | 150         | °C                   |
| Storage temperature          | Tstg                                 | -55 to +150 | °C                   |

Note : 1. PW  $\leq$  10 ms, Duty cycle  $\leq 20\%$ 

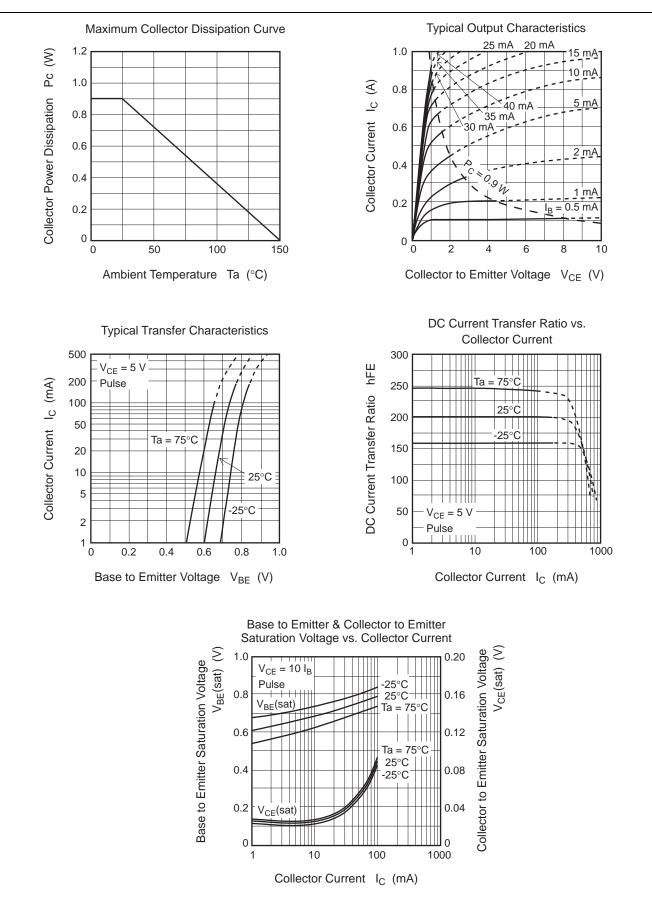


## **Electrical Characteristics**

| $(1a = 25^{\circ}C)$ | (Ta | = 2 | 25° | C) |
|----------------------|-----|-----|-----|----|
|----------------------|-----|-----|-----|----|

| Item                                    | Symbol               | Min | Тур | Max | Unit | Test conditions   |
|---|----------------------|-----|-----|-----|------|---|
| Collector to base breakdown voltage     | V <sub>(BR)CBO</sub> | 120 | —   | —   | V    | $I_{C} = 100 \ \mu A, \ I_{E} = 0$                      |
| Collector to emitter breakdown voltage  | V <sub>(BR)CEO</sub> | 100 | —   | —   | V    | $I_C = 10 \text{ mA}, R_{BE} = \infty$                  |
| Emitter to base breakdown voltage       | V <sub>(BR)EBO</sub> | 6   | —   | —   | V    | $I_E = 100 \ \mu A, \ I_C = 0$                          |
| Collector cutoff current                | I <sub>CBO</sub>     |     | —   | 500 | nA   | $V_{CB} = 120 \text{ V}, I_E = 0$                       |
| Emitter cutoff current                  | I <sub>EBO</sub>     | _   | —   | 500 | nA   | $V_{EB} = 6 V, I_{C} = 0$                               |
| DC current transfer ratio               | h <sub>FE1</sub>     | 140 | _   | 330 |      | $V_{CE} = 2 \text{ V}, I_{C} = 150 \text{ mA}$          |
|   | h <sub>FE2</sub>     | 40  | —   | _   | _    | $V_{CE} = 5 \text{ V}, I_{C} = 1 \text{ A}$             |
| Collector to emitter saturation voltage | V <sub>CE(sat)</sub> |     | —   | 0.5 | V    | $I_{\rm C} = 500 \text{ mA}, I_{\rm B} = 50 \text{ mA}$ |
| Base to emitter saturation voltage      | V <sub>BE(sat)</sub> | _   | _   | 1.1 | V    | $I_{C} = 500 \text{ mA}, I_{B} = 50 \text{ mA}$         |

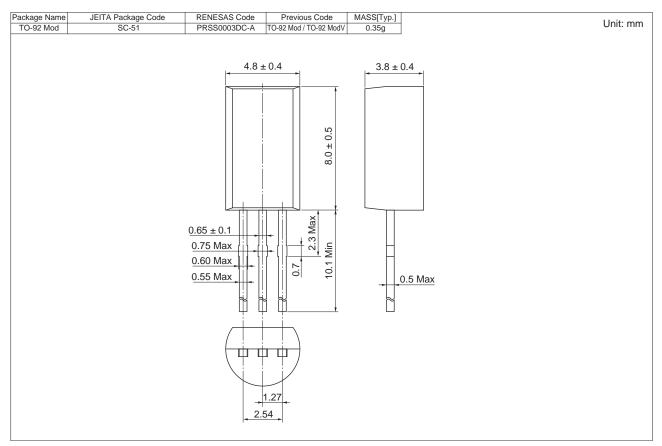




#### **Main Characteristics**



## **Package Dimensions**

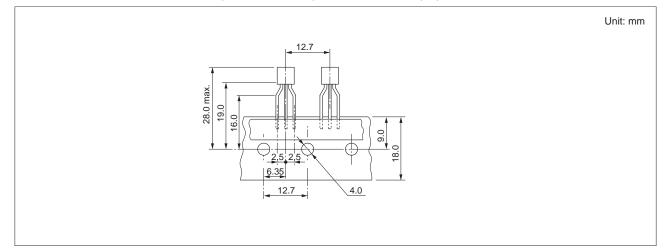


### **Ordering Information**

| Orderable Part Number | Quantity  | Shipping Container      | Remarks                |
|-----------------------|-----------|-------------------------|------------------------|
| HIT667-EQ             | 2500 pcs. | Bulk, Vinyl Bag         | PB free product        |
| HIT667-TZ-EQ          | 2500 pcs. | Hold Box, Radial Taping |                        |
| HIT667-HQ             | 2500 pcs. | Bulk, Vinyl Bag         | Halogen free & PB free |
| HIT667-TZ-HQ          | 2500 pcs. | Hold Box, Radial Taping | product                |

Notes: 1. This product is designed for consumer use and not for automotive or industrial use.

2. For Hold Box, Radial Taping, leads is forming applied as following figure.





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