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April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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Not recommended
for new design

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HIT8050-N

Silicon NPN Epitaxial

REJ03G1611-0100
Rev.1.00
Nov 28, 2007

Features

- Low frequency power amplifier
- Complementary pair with HIT8550-N

Outline

RENESAS Package code: PRSS0003DA-A
(Package name: TO-92 (1))



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings

($T_a = 25^\circ\text{C}$)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	45	V
Collector to emitter voltage	V_{CEO}	25	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I_C	0.7	A
Collector peak current	$I_{C(\text{peak})}$ ^{Note}	1.0	A
Collector power dissipation	P_C	0.625	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

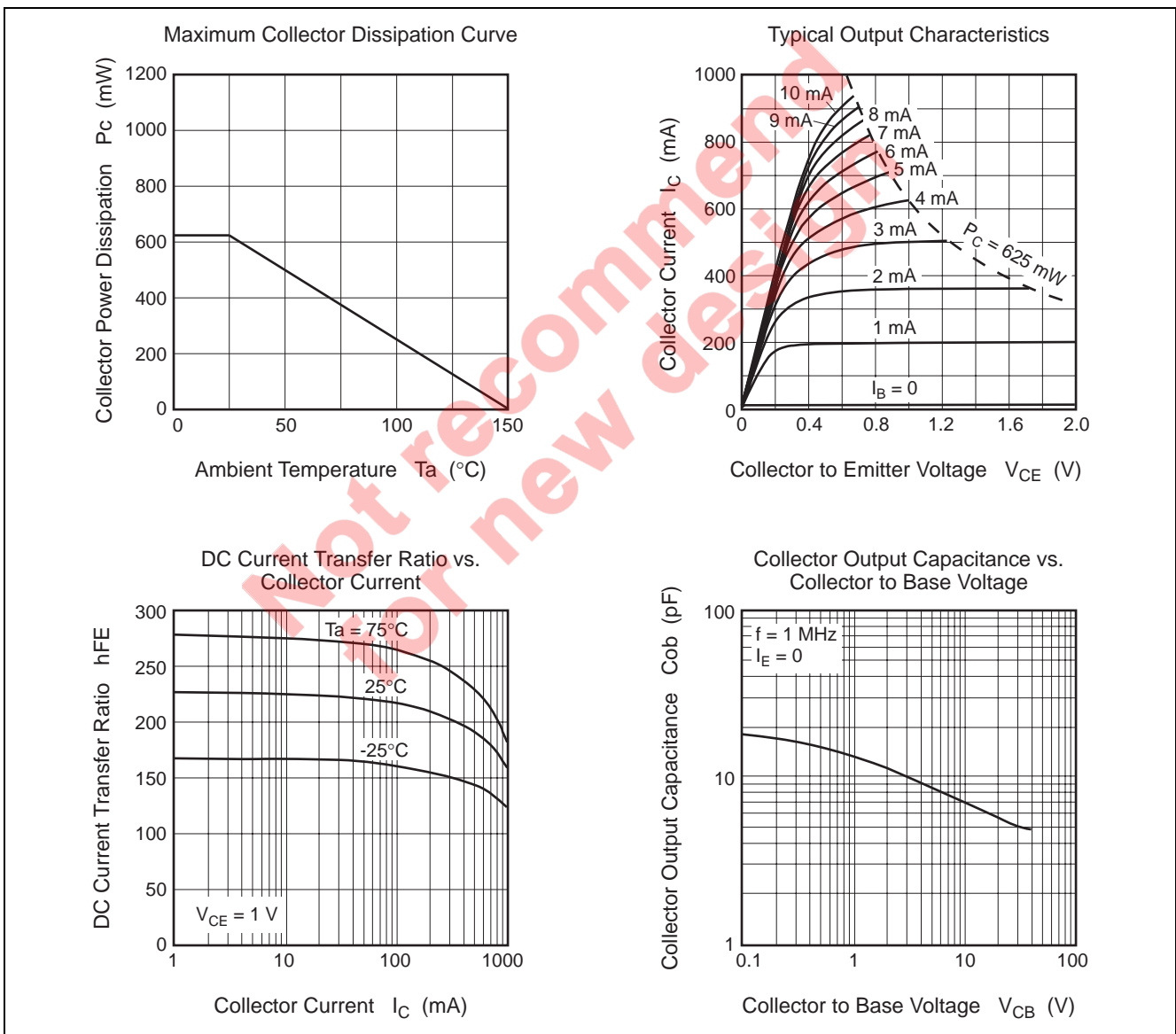
Note: $PW \leq 10 \text{ ms}$, Duty cycle $\leq 20\%$

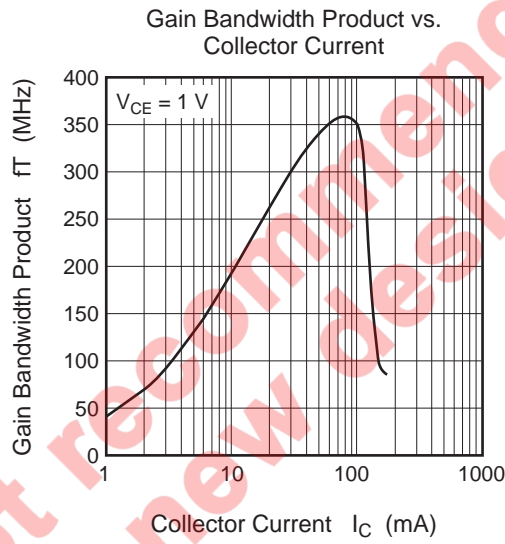
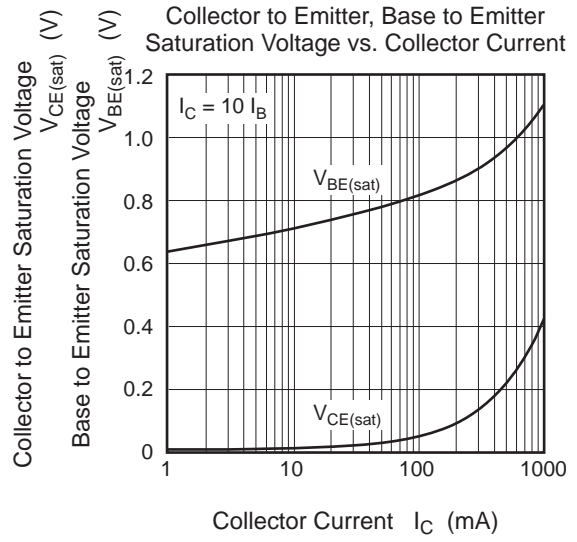
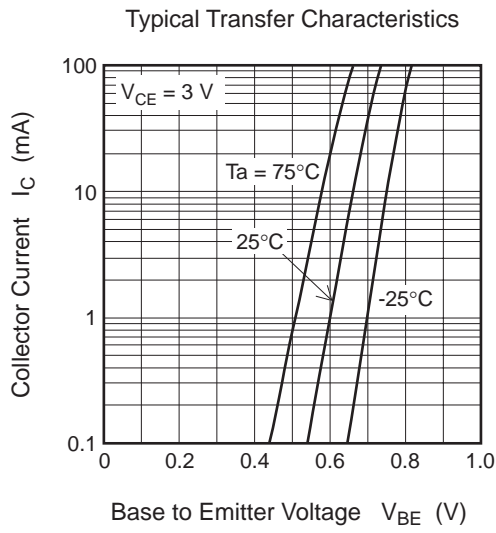
Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min.	Typ	Max.	Unit	Test Conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	45	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	25	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	500	nA	$V_{CB} = 45 \text{ V}, I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	500	nA	$V_{EB} = 6 \text{ V}$
DC current transfer ratio	h_{FE1}	45	—	—	—	$V_{CE} = 1 \text{ V}, I_C = 5 \text{ mA}$
DC current transfer ratio	h_{FE2}	85	—	330	—	$V_{CE} = 1 \text{ V}, I_C = 100 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.5	V	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$
Base to emitter voltage	$V_{BE(on)}$	—	—	1.0	V	$V_{CE} = 3 \text{ V}, I_C = 10 \text{ mA}$

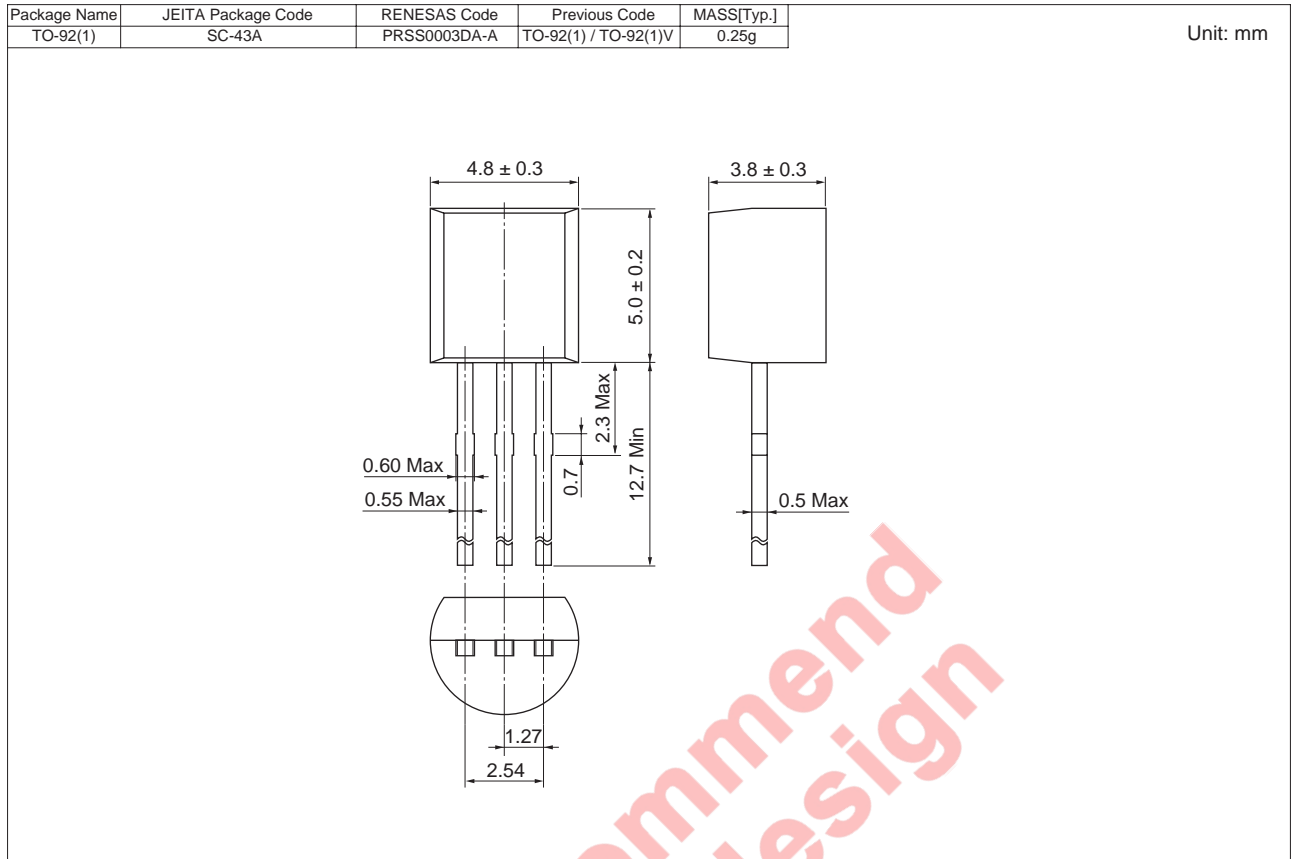
Main Characteristics





Not recommended for new design

Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
HIT8050-N-EQ	2500 pcs.	Bulk, Vinyl Bag
HIT8050-N-TZ-EQ	2500 pcs.	Hold Box, Radial Taping

Note: This product is designed for consumer use and not for automotive.

Notes:

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