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Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

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

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2SA1566

Silicon PNP Epitaxial

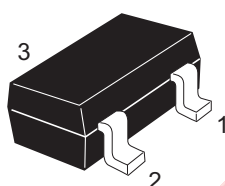
REJ03G0642-0200
(Previous ADE-208-1021)
Rev.2.00
Aug.10.2005

Application

Low frequency amplifier

Outline

RENESAS Package code: PLSP0003ZB-A
(Package name: MPAK)



- 1. Emitter
- 2. Base
- 3. Collector

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-120	V
Collector to emitter voltage	V_{CEO}	-120	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_C	-100	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-120	—	—	V	$I_C = -10\ \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-120	—	—	V	$I_C = -1\ mA, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-5	—	—	V	$I_E = -10\ \mu A, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	-0.1	μA	$V_{CB} = -70\ V, I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	-0.1	μA	$V_{EB} = -2\ V, I_C = 0$
DC current transfer ratio	h_{FE}^{*1}	250	—	800		$V_{CE} = -12\ V, I_C = -2\ mA^{*2}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-0.15	V	$I_C = -10\ mA, I_B = -1\ mA^{*2}$
Base to emitter voltage	$V_{BE(sat)}$	—	—	-1.0	V	$I_C = -10\ mA, I_B = -1\ mA^{*2}$

Notes: 1. The 2SA1566 is grouped by h_{FE} as follows.

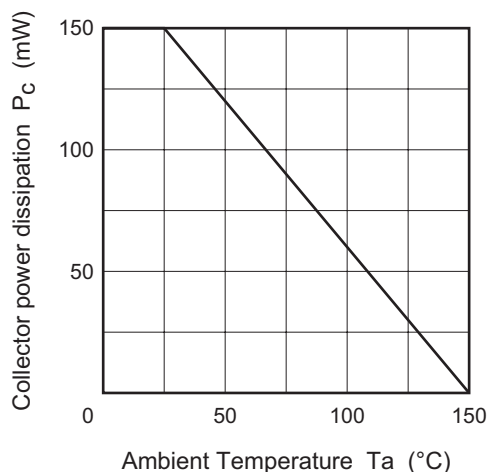
2. Pulse test

Grade	D	E
Mark	JID	JIE
h_{FE}	250 to 500	400 to 800

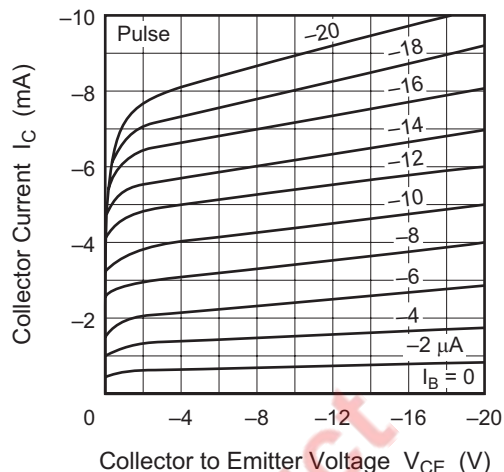
EOL announced Product

Main Characteristics

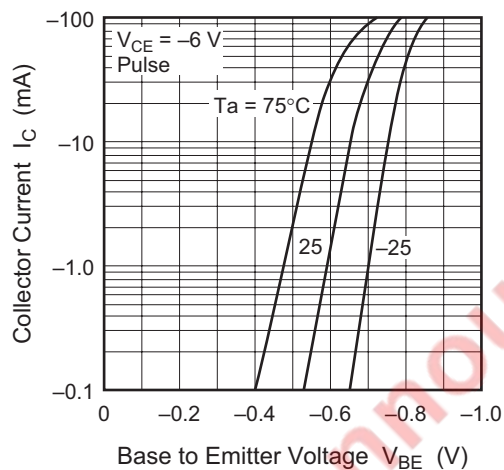
Maximum Collector Dissipation Curve



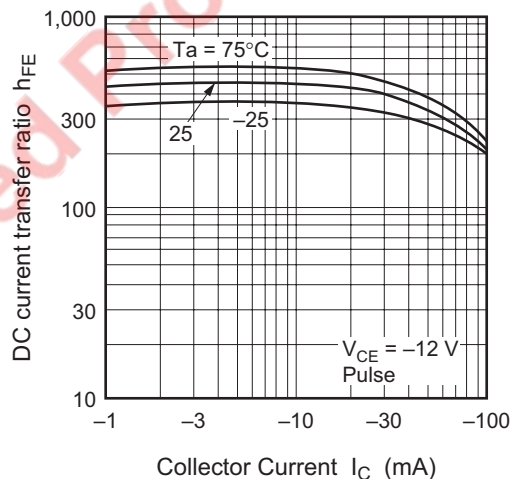
Typical Output Characteristics



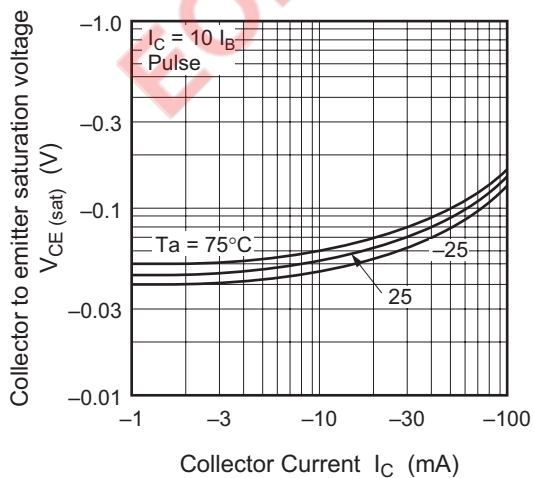
Typical Transfer Characteristics



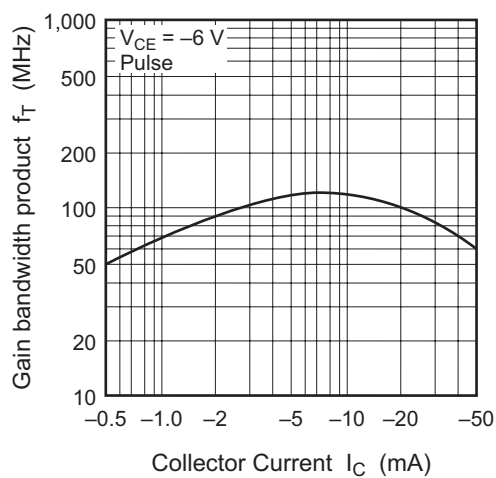
DC Current Transfer Ratio vs. Collector Current

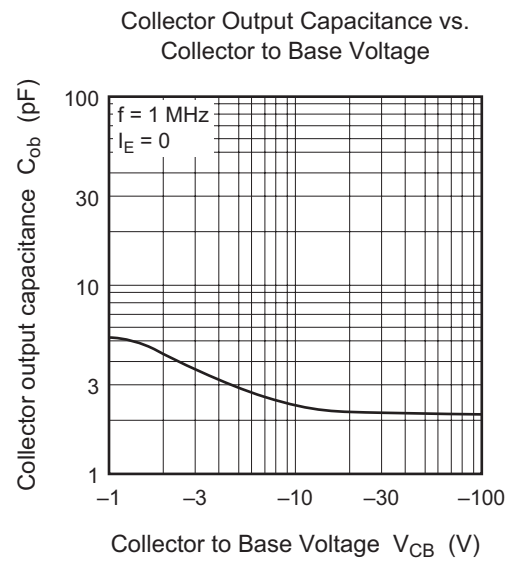


Collector to Emitter Saturation Voltage vs. Collector Current



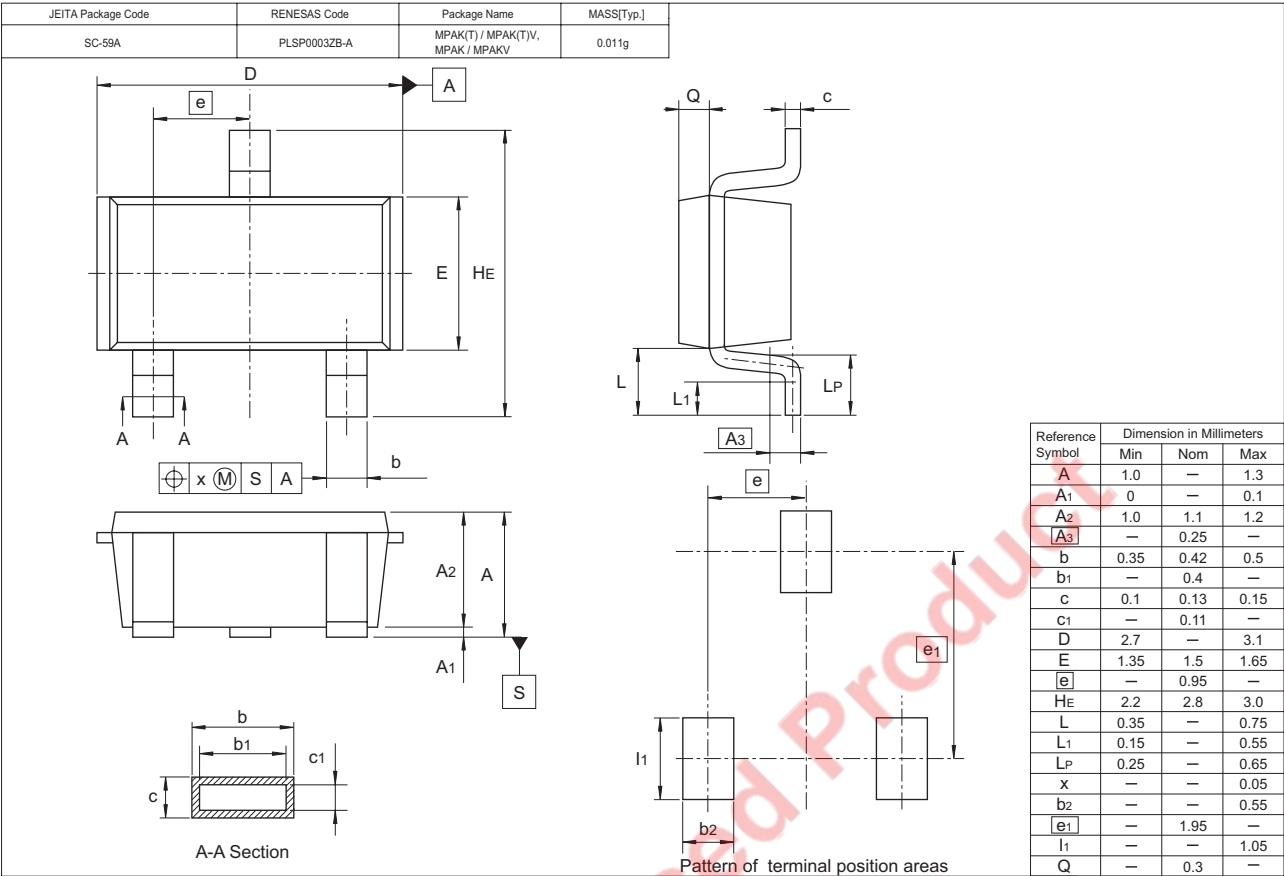
Gain Bandwidth Product vs. Collector Current





EOL announced Product

Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SA1566JIDTL-E	3000	φ 178 mm Reel, 8 mm Emboss Taping
2SA1566JIETL-E		

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