

2SD2655

Silicon NPN Epitaxial Planer Low Frequency Power Amplifier

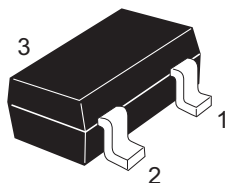
REJ03G0810-0200
(Previous ADE-208-1388A)
Rev.2.00
Aug.10.2005

Features

- Small size package: MPAK (SC-59A)
- Large Maximum current: $I_C = 1$ A
- Low collector to emitter saturation voltage: $V_{CE(sat)} = 0.3$ V max.(at $I_C/I_B = 0.5$ A/0.05 A)
- High power dissipation: $P_C = 800$ mW (when using alumina ceramic board (25 x 60 x 0.7 mm))
- Complementary pair with 2SB1691

Outline

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



1. Emitter
2. Base
3. Collector

Note: Marking is "WM-".

Absolute Maximum Ratings

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

Item	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to emitter voltage	V_{CEO}	50	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I_C	1	A
Collector peak current	$i_{c(peak)}$	2	A
Collector power dissipation	P_C	800*	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

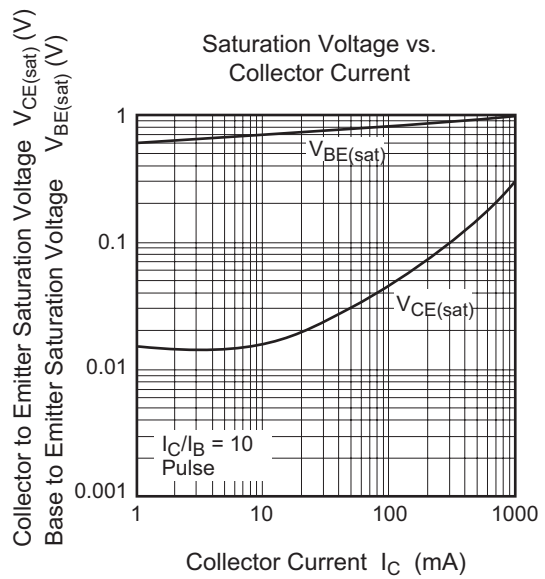
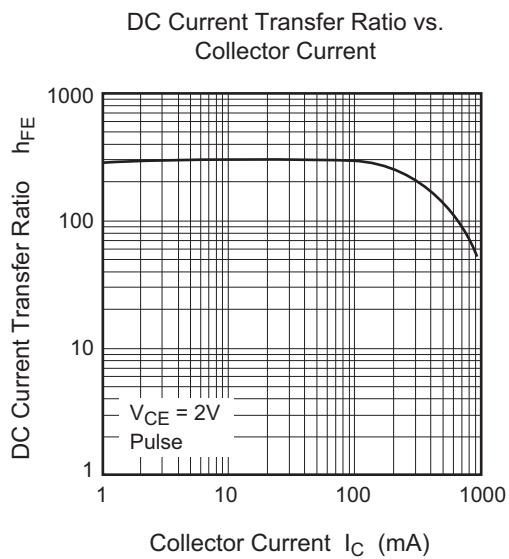
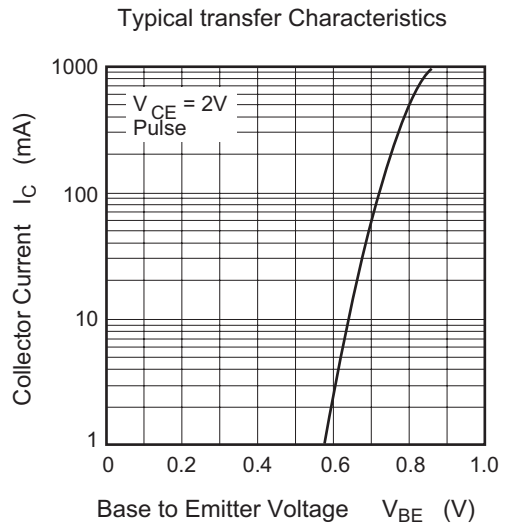
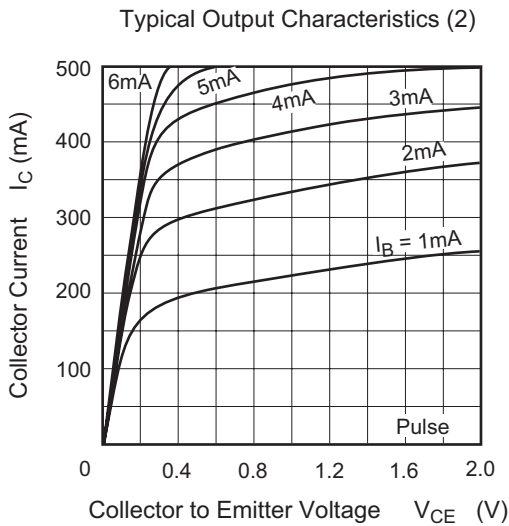
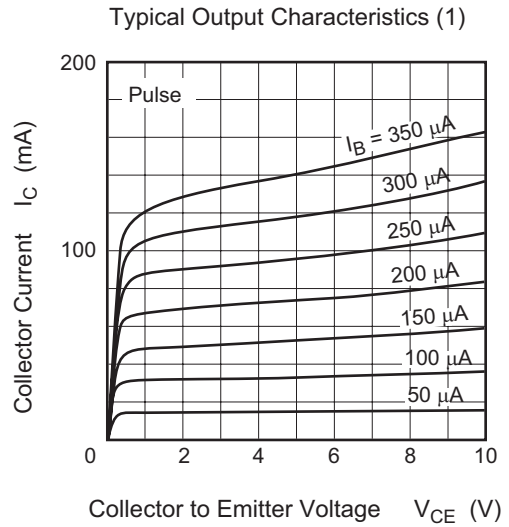
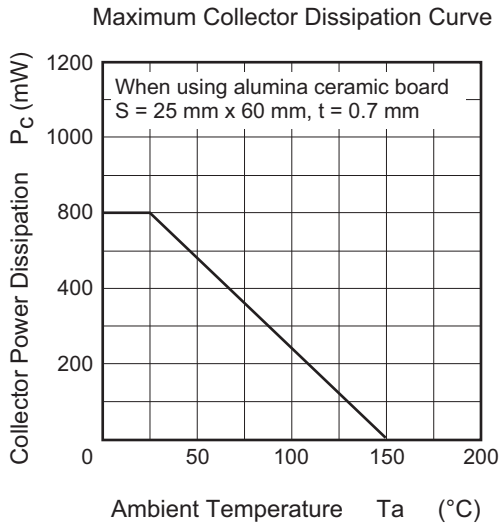
Note: *When using alumina ceramic board (25 x 60 x 0.7 mm)

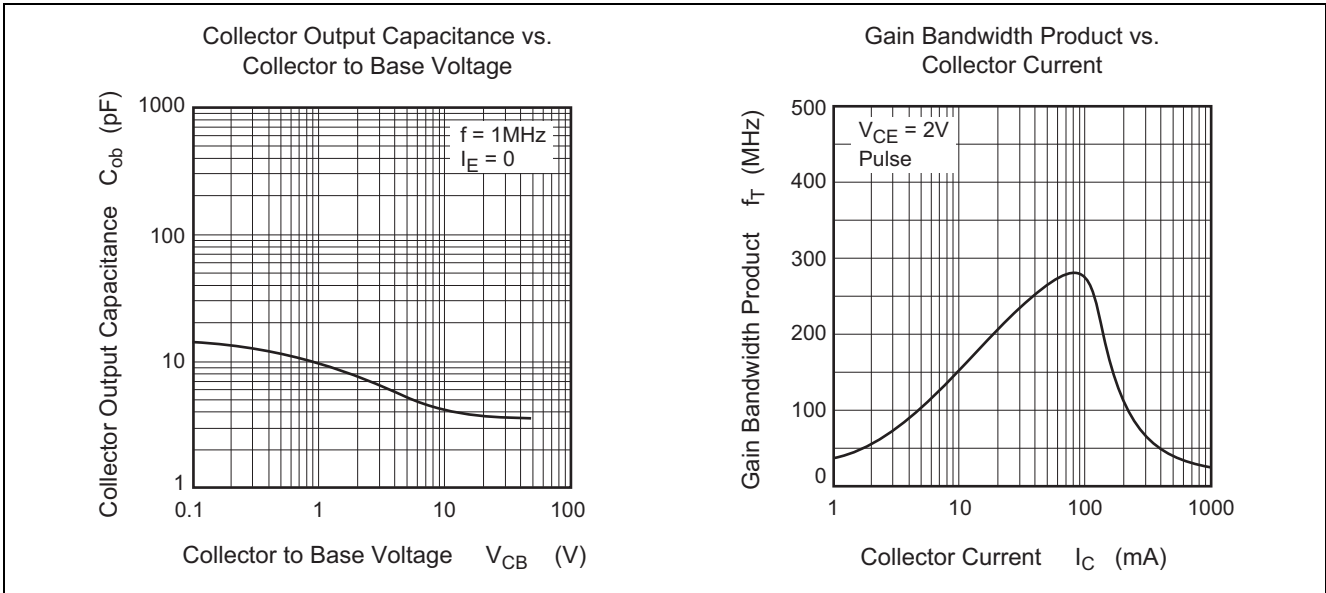
Electrical Characteristics

(Ta = 25°C)

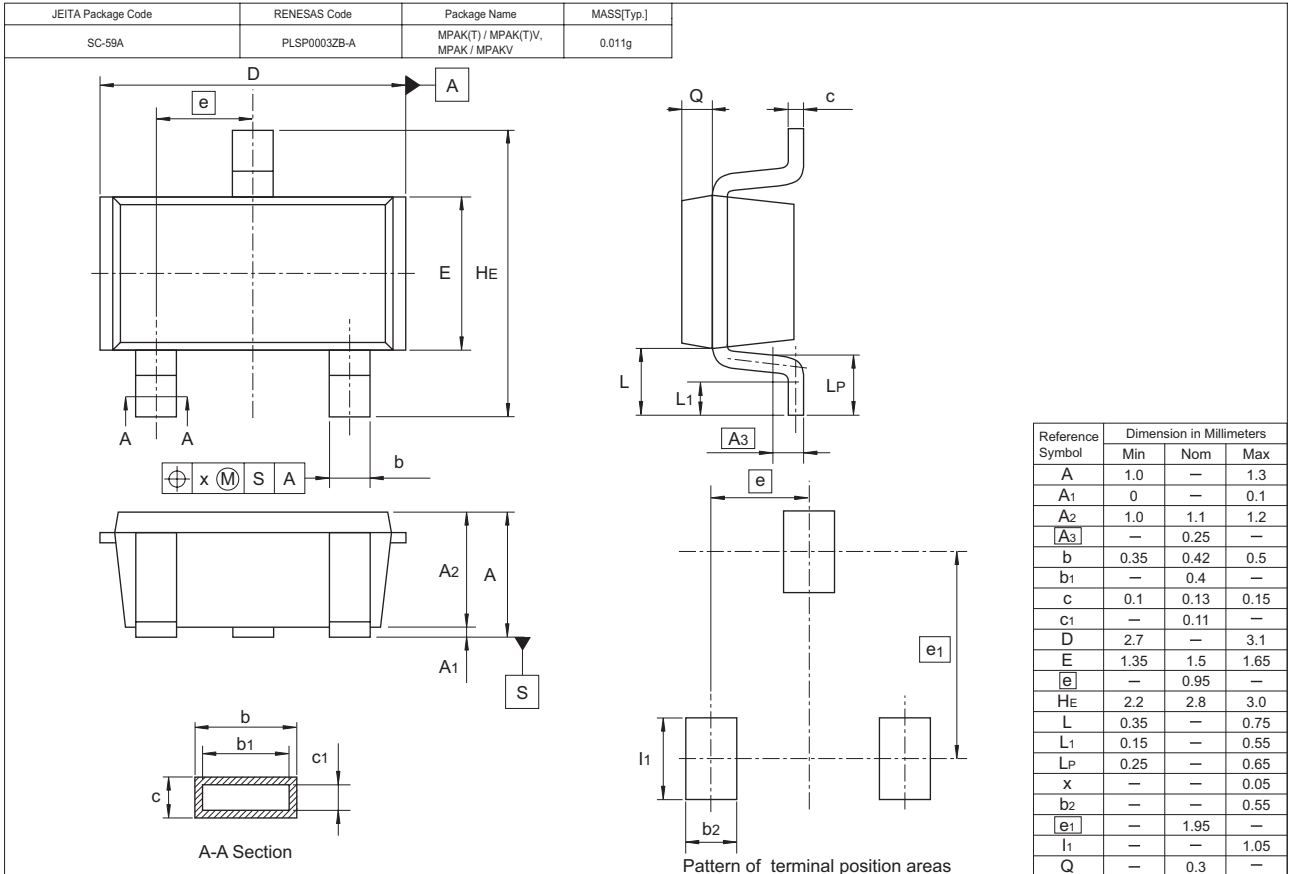
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Collector to base breakdown voltage	$V_{(BR)CBO}$	60	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	50	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	100	nA	$V_{CB} = 50 \text{ V}, I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	100	nA	$V_{EB} = 5 \text{ V}, I_C = 0$
DC current transfer ratio	h_{FE}	200	—	500	—	$V_{CE} = 2 \text{ V}, I_C = 0.1 \text{ A}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	0.16	0.3	V	$I_C = 0.5 \text{ A}, I_B = 0.05 \text{ A}$, Pulse test
Base to emitter saturation voltage	$V_{BE(sat)}$	—	0.91	1.2	V	$I_C = 0.5 \text{ A}, I_B = 0.05 \text{ A}$, Pulse test
Gain bandwidth product	f_T	—	280	—	MHz	$V_{CE} = 2 \text{ V}, I_C = 0.1 \text{ A}$
Collector output capacitance	C_{ob}	—	4.2	—	pF	$V_{CB} = 10 \text{ V}, I_E = 0$, $f = 1 \text{ MHz}$

Main Characteristics





Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SD2655WM-TL-E	3000	φ 178 mm Reel, 8 mm Emboss Taping

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

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450 Holger Way, San Jose, CA 95134-1368, U.S.A
Tel: <1> (408) 382-7500, Fax: <1> (408) 382-7501

Renesas Technology Europe Limited

Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K.
Tel: <44> (1628) 585-100, Fax: <44> (1628) 585-900

Renesas Technology Hong Kong Ltd.

7th Floor, North Tower, World Finance Centre, Harbour City, 1 Canton Road, Tsimshatsui, Kowloon, Hong Kong
Tel: <852> 2265-6688, Fax: <852> 2730-6071

Renesas Technology Taiwan Co., Ltd.

10th Floor, No.99, Fushing North Road, Taipei, Taiwan
Tel: <886> (2) 2715-2888, Fax: <886> (2) 2713-2999

Renesas Technology (Shanghai) Co., Ltd.

Unit2607 Ruijing Building, No.205 Maoming Road (S), Shanghai 200020, China
Tel: <86> (21) 6472-1001, Fax: <86> (21) 6415-2952

Renesas Technology Singapore Pte. Ltd.

1 Harbour Front Avenue, #06-10, Keppel Bay Tower, Singapore 098632
Tel: <65> 6213-0200, Fax: <65> 6278-8001

Renesas Technology Korea Co., Ltd.

Kukje Center Bldg. 18th Fl., 191, 2-ka, Hangang-ro, Yongsan-ku, Seoul 140-702, Korea
Tel: <82> 2-796-3115, Fax: <82> 2-796-2145

Renesas Technology Malaysia Sdn. Bhd.

Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No.18, Jalan Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia
Tel: <603> 7955-9390, Fax: <603> 7955-9510