

# 2SD2655

## Silicon NPN Epitaxial Planer Low Frequency Power Amplifier

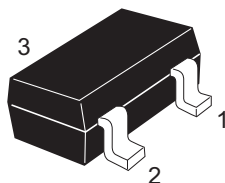
REJ03G0810-0200  
(Previous ADE-208-1388A)  
Rev.2.00  
Aug.10.2005

### 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	$i_c(\text{peak})$	2	A
Collector power dissipation	$P_C$	800*	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

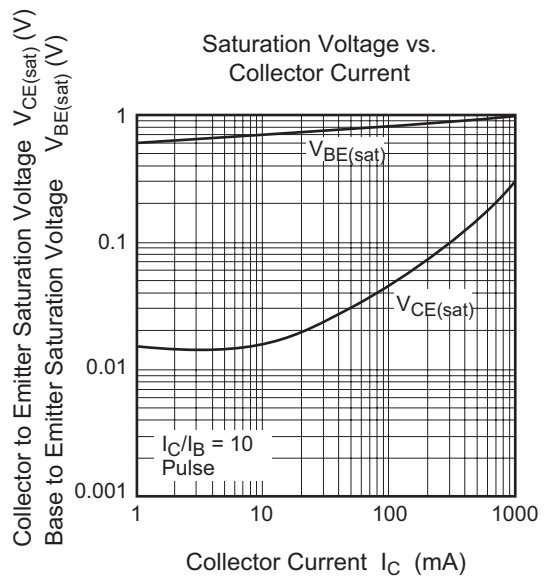
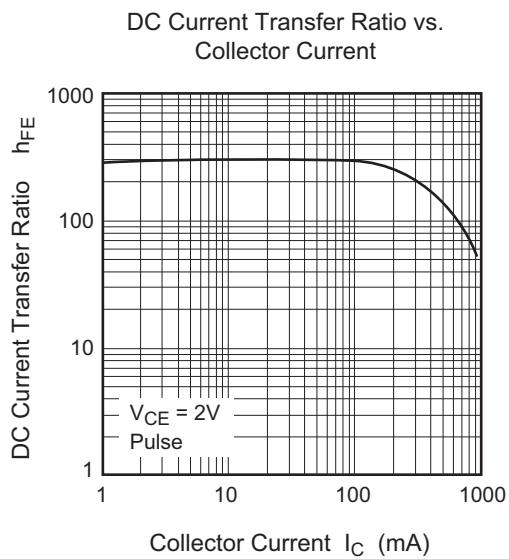
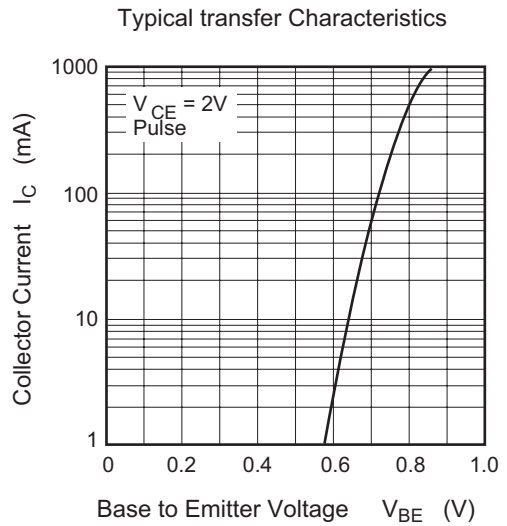
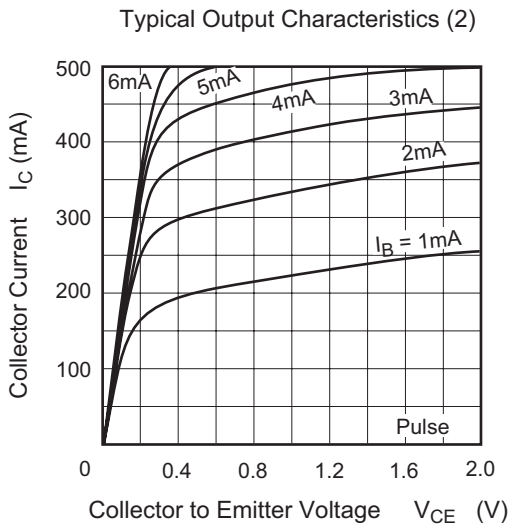
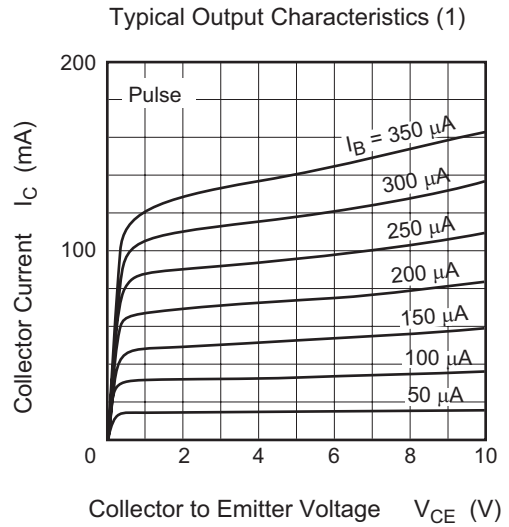
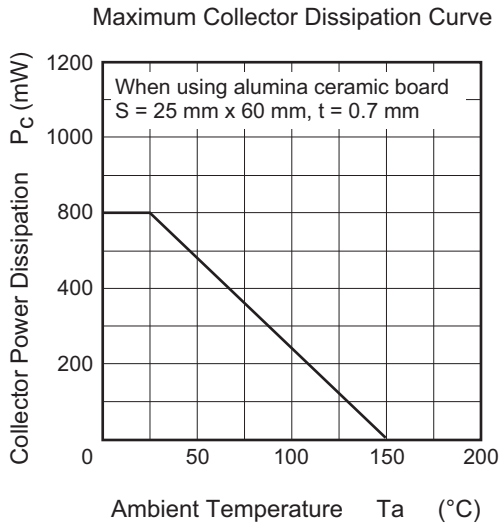
Note: \*When using alumina ceramic board (25 x 60 x 0.7 mm)

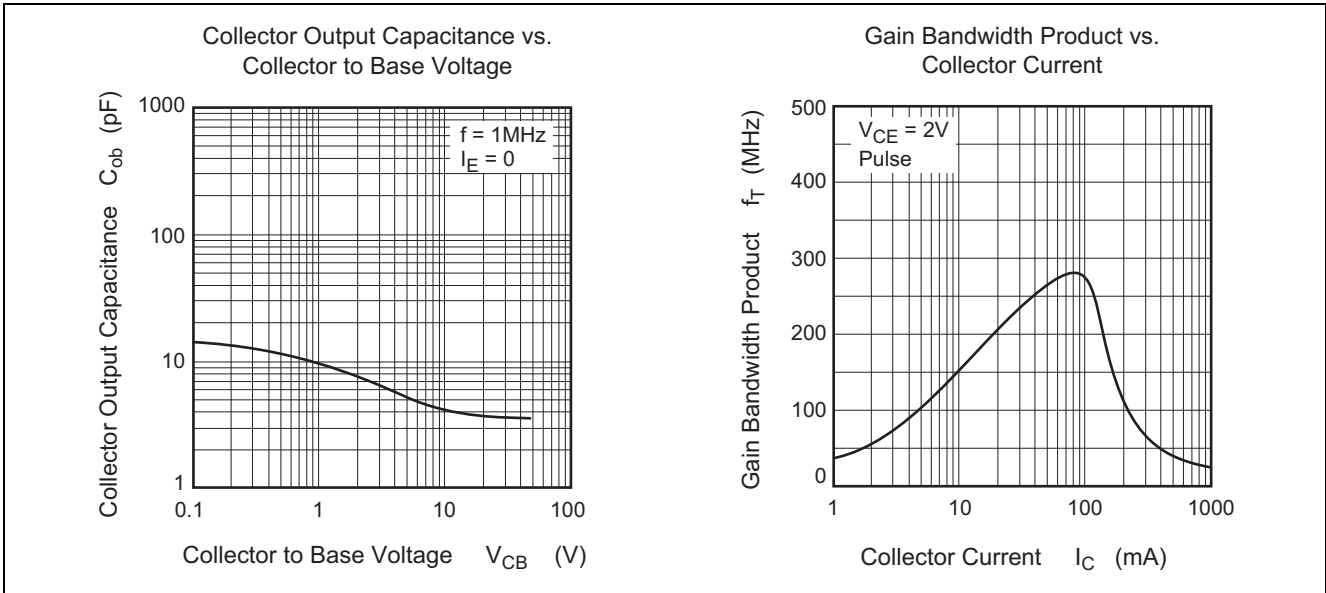
## Electrical Characteristics

(Ta = 25°C)

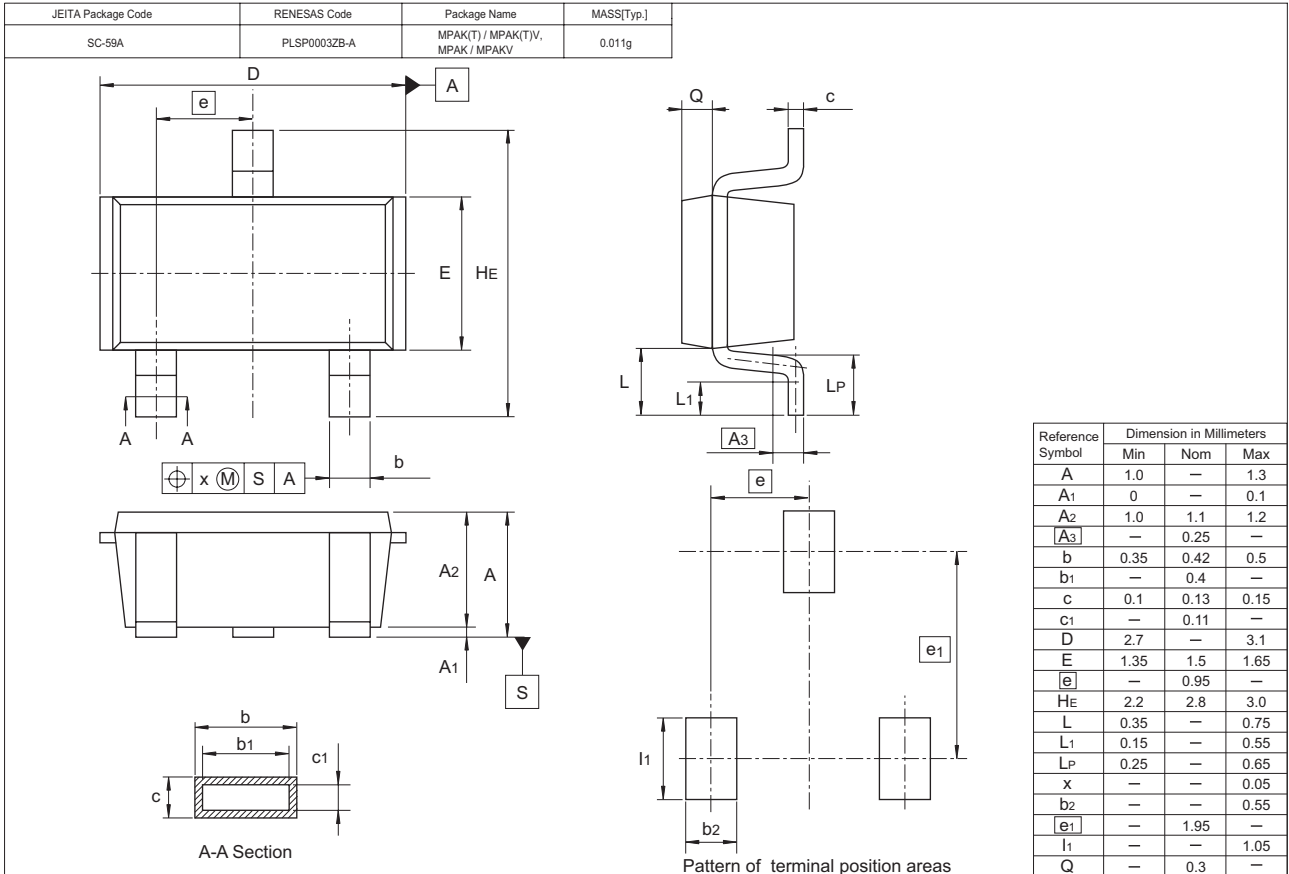
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Collector to base breakdown voltage	$V_{(BR)CBO}$	60	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	50	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	$I_E = 10 \mu A, I_C = 0$
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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