

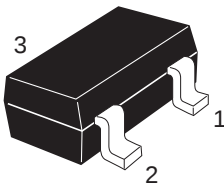
Silicon PNP Epitaxial Planar
Low Frequency Power Amplifier

Features

- Small size package: SOT23-3
- Large Maximum current: $I_C = -1\text{ A}$
- Low collector to emitter saturation voltage: $V_{CE(sat)} = -0.3\text{ V max. (at } I_C/I_B = -0.5\text{ A/-0.05 A)}$
- High power dissipation: $P_C = 800\text{ mW}$ (when using alumina ceramic board (25 x 60 x 0.7 mm))
- Complementary pair with 2SD2655

Outline

(Package name: SOT23-3)



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

Note: Marking is "WL-".

Absolute Maximum Ratings

(Ta = 25°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	°C
Storage temperature	T_{stg}	-55 to +150	°C

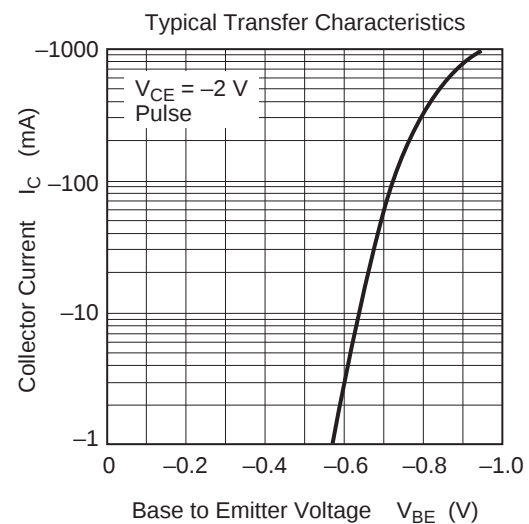
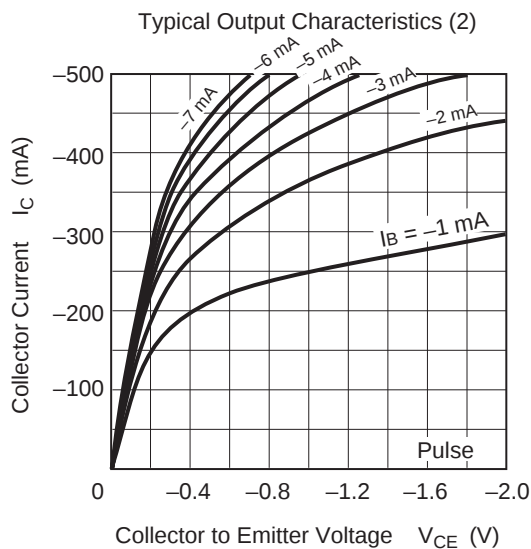
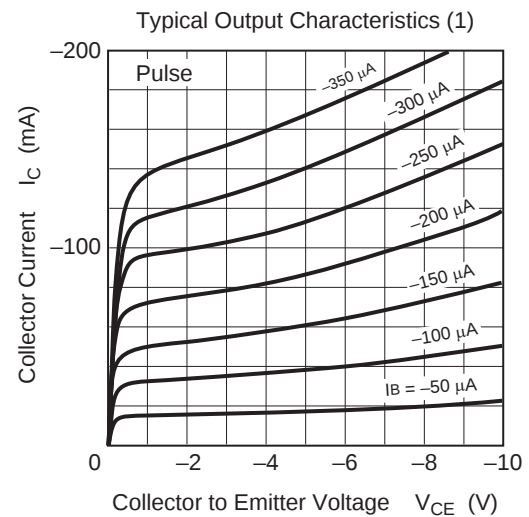
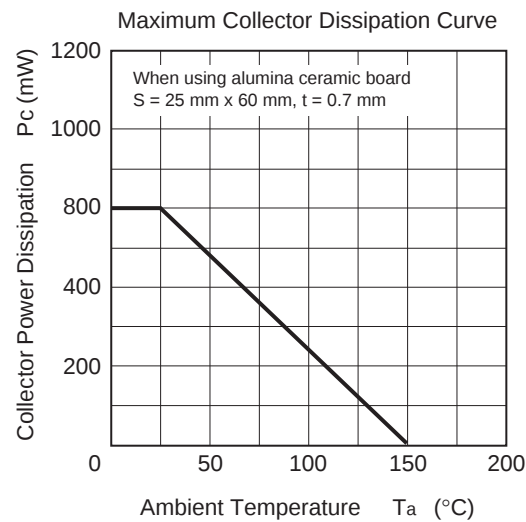
Note: *When using alumina ceramic board (25 x 60 x 0.7 mm)

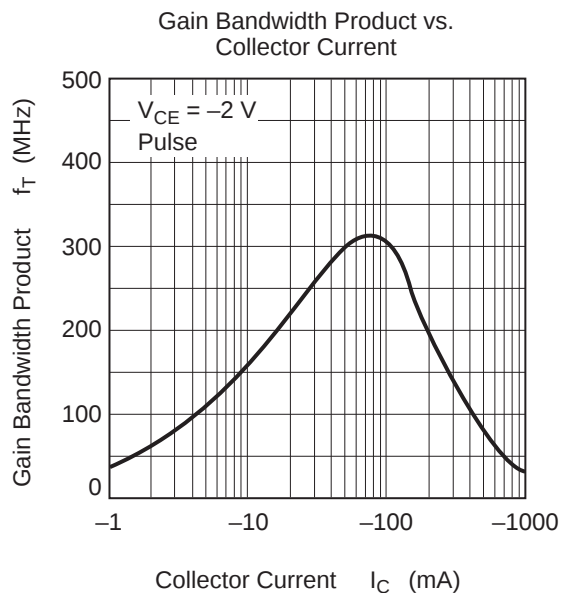
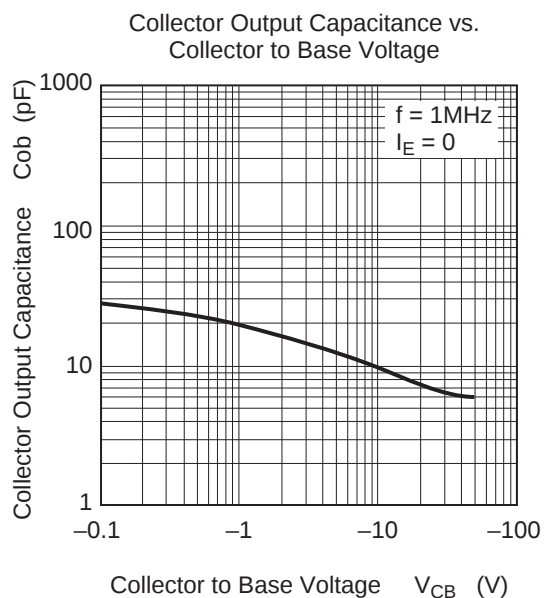
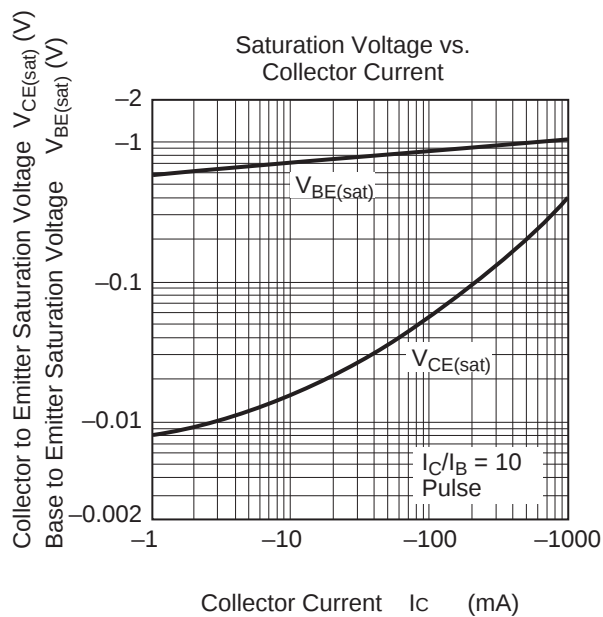
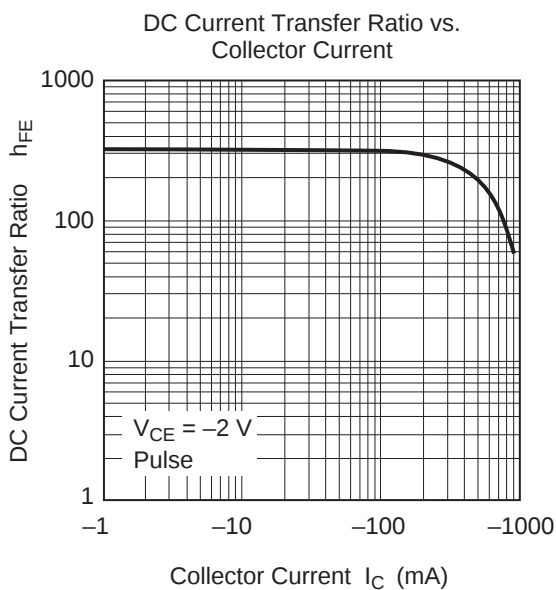
Electrical Characteristics

(Ta = 25°C)

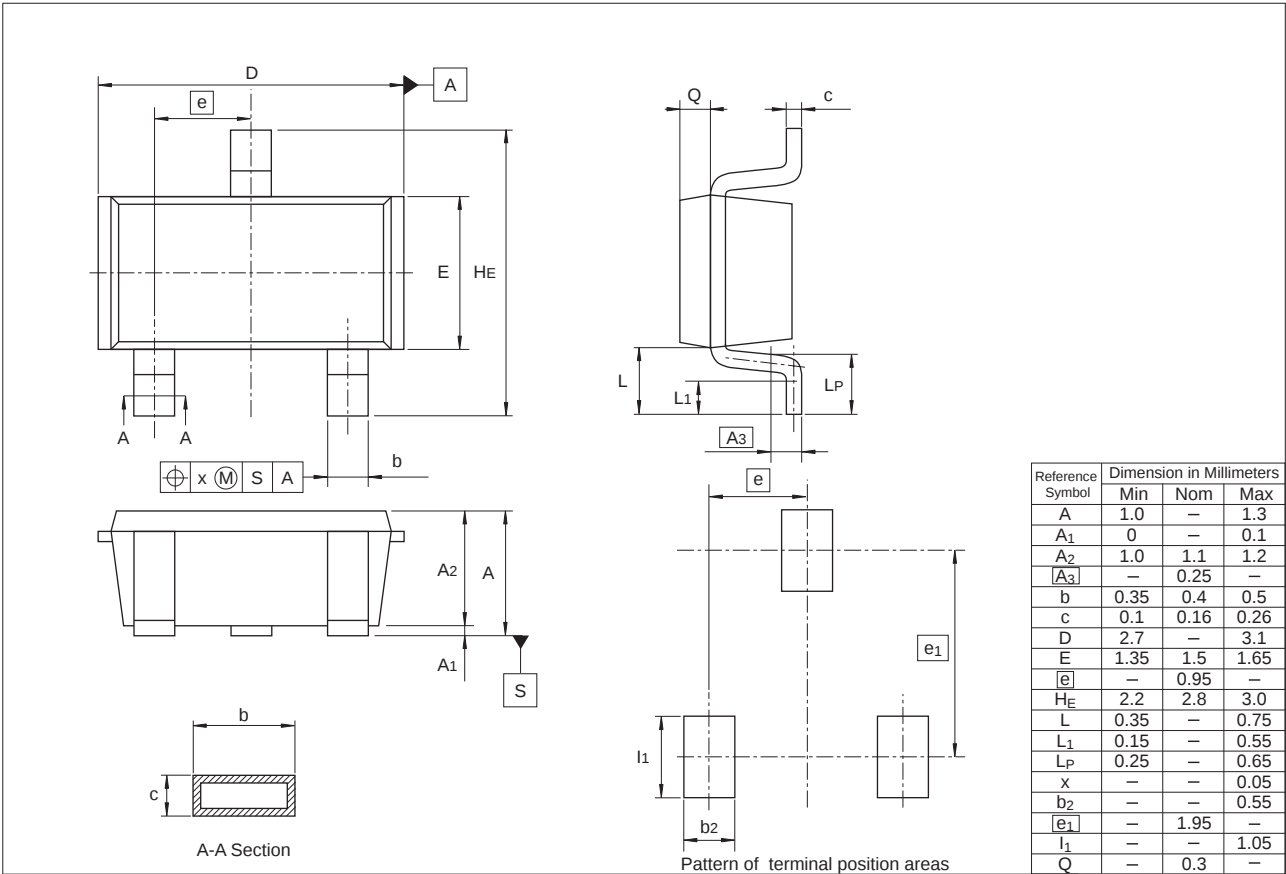
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Collector to base breakdown voltage	$V_{(BR)CBO}$	-60	—	—	V	$I_C = -10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-50	—	—	V	$I_C = -1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-6	—	—	V	$I_E = -10 \mu A, I_C = 0$
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	$V_{CE(sat)}$	—	-0.2	-0.3	V	$I_C = -0.5 \text{ A}, I_B = -0.05 \text{ A}$, Pulse test
Base to emitter saturation voltage	$V_{BE(sat)}$	—	-0.95	-1.2	V	$I_C = -0.5 \text{ A}, I_B = -0.05 \text{ A}$, Pulse test
Gain bandwidth product	f_T	—	310	—	MHz	$V_{CE} = -2 \text{ V}, I_C = -0.1 \text{ A}$
Collector output capacitance	C_{ob}	—	9.8	—	pF	$V_{CB} = -10 \text{ V}, I_E = 0$, $f = 1 \text{ MHz}$

Main Characteristics





Package Dimensions



Ordering Information

Orderable Part Number	Quantity	Shipping Container
2SB1691	3000 pcs	φ178 mm Taping Reel