

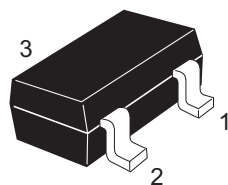
Silicon NPN Epitaxial Planer
Low Frequency Power Amplifier

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 2SB1691

Outline

(Package name: SOT23-3)



- 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	$^{\circ}\text{C}$

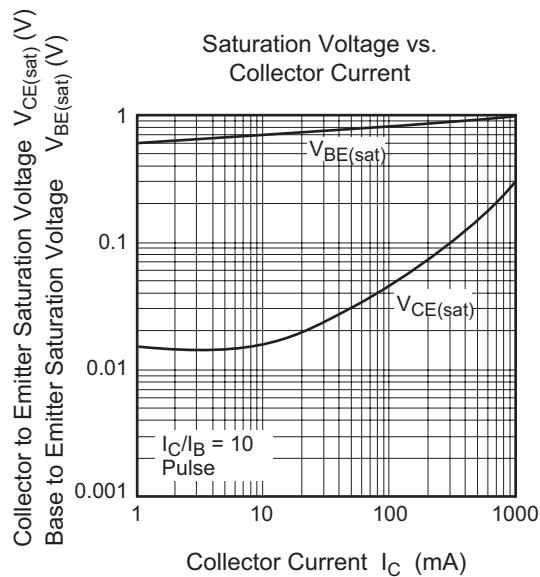
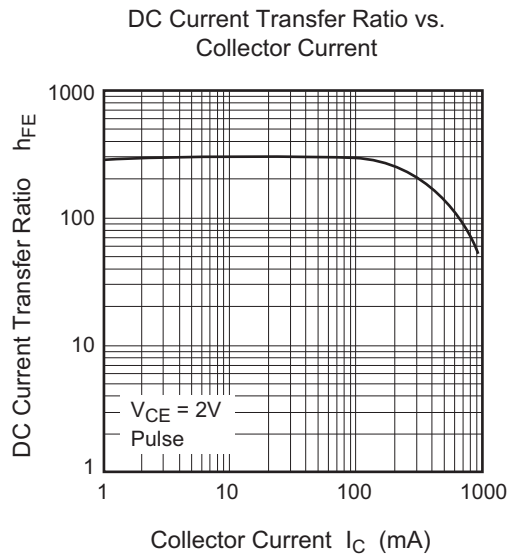
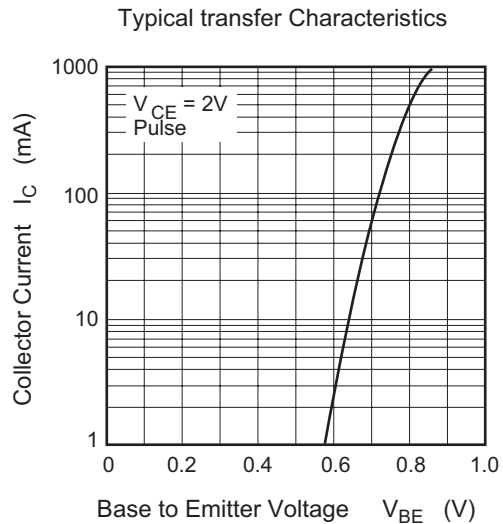
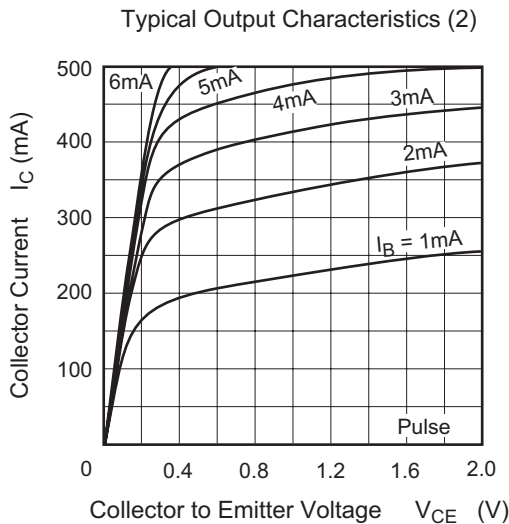
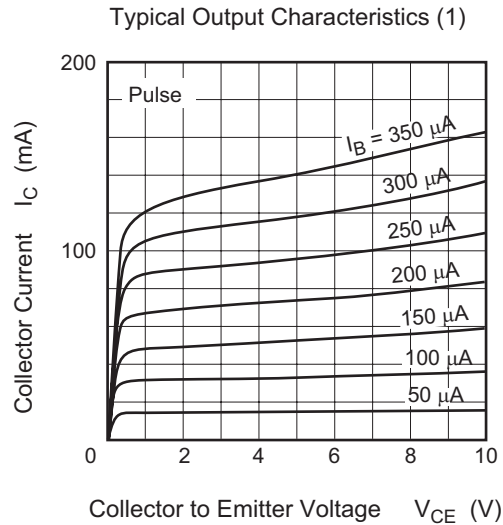
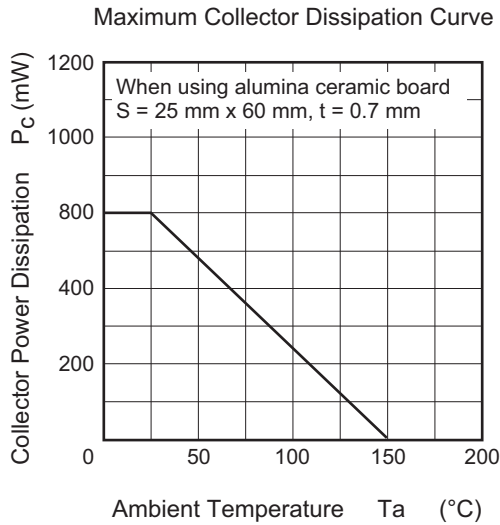
Note: *When using alumina ceramic board (25 x 60 x 0.7 mm)

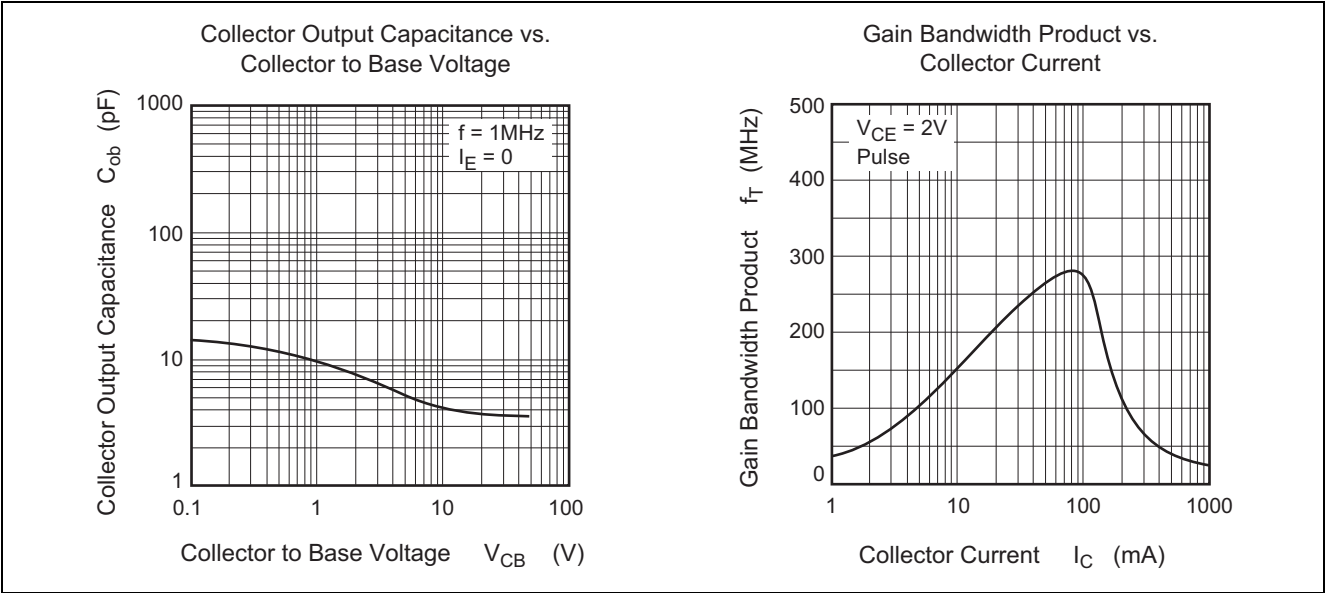
Electrical Characteristics

(Ta = 25°C)

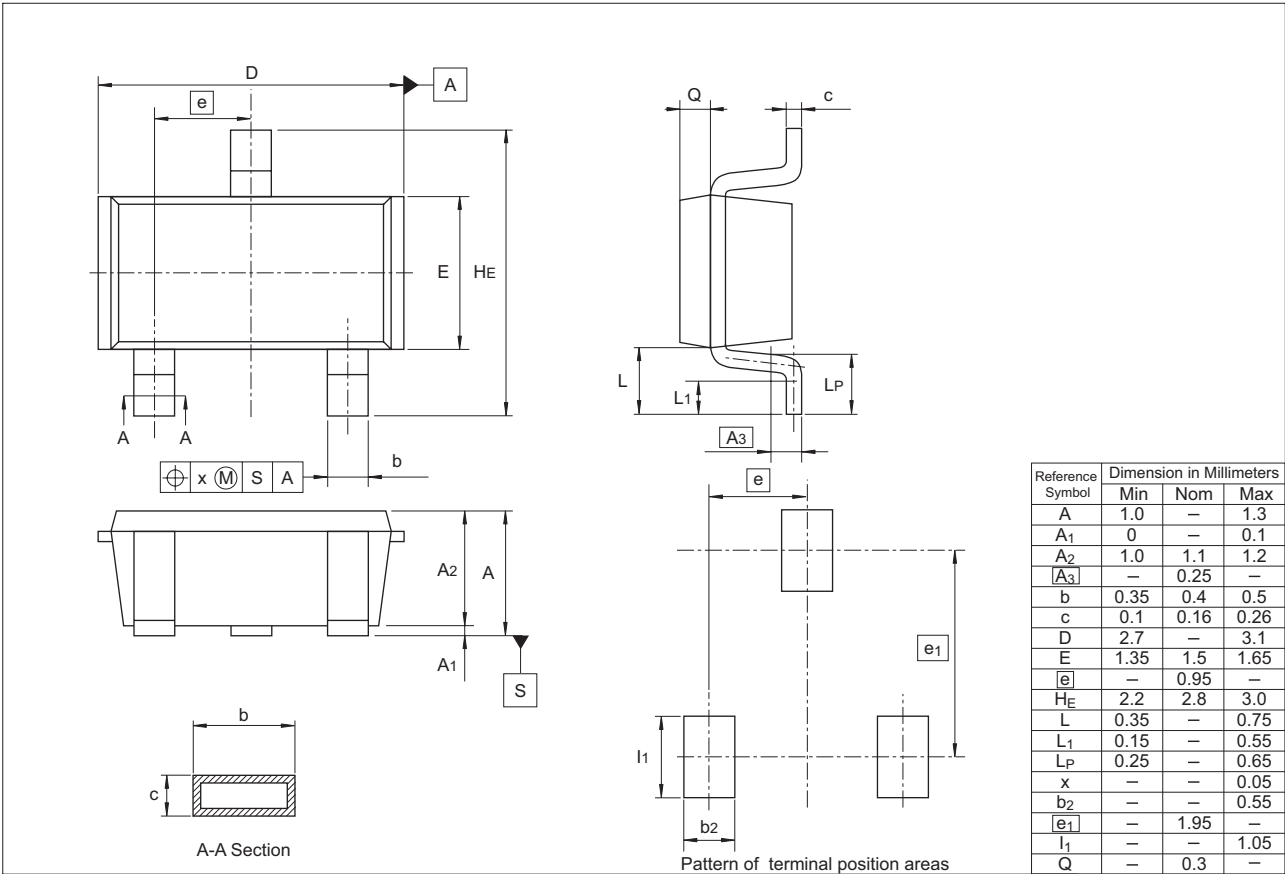
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Collector to base breakdown voltage	$V_{(BR)CBO}$	60	—	—	V	$I_C = 10\ \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	50	—	—	V	$I_C = 1\ mA, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	$I_E = 10\ \mu A, I_C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

Main Characteristics





Package Dimensions



Ordering Information

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