

2SB1518

Silicon PNP Epitaxial
Low Frequency Power Amplifier, Switching

Features

- Low saturation voltage
 $V_{CE(sat)} = -0.2\text{ V Typ. (at } I_C = -2\text{ A)}$
- Small surface mounted package.

Table 1 Absolute Maximum Ratings
(Ta = 25°C)

Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-30	V
Collector to emitter voltage	V_{CEO}	-25	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_C	-3	A
Collector power dissipation	P_C^*	1	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

* When using the alumina ceramic board (12.5 × 20 × 0.7 mm)

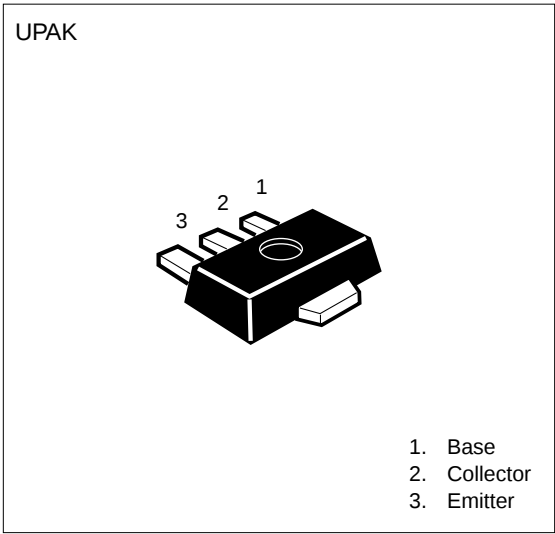


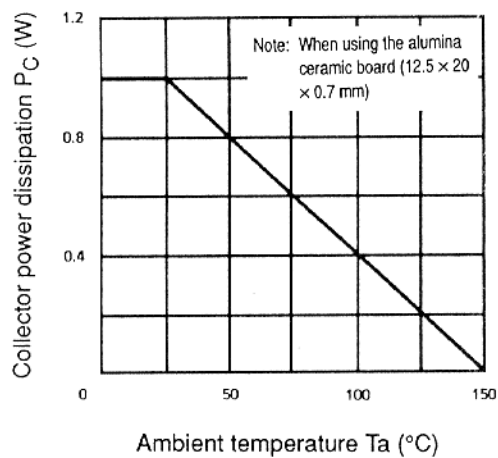
Table 2 Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test condition
Collector to base breakdown voltage	$V_{(BR)CBO}$	-30	—	—	V	$I_C = -10\text{ }\mu\text{A, } I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-25	—	—	V	$I_C = -1\text{ mA, } R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-5	—	—	V	$I_E = -10\text{ }\mu\text{A, } I_C = 0$
Collector cutoff current	I_{CBO}	—	—	-0.1	μA	$V_{CB} = -24\text{ V, } I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	-0.1	μA	$V_{EB} = -4\text{ V, } I_C = 0$
DC current transfer ratio	h_{FE1}^*	160	—	500	—	$V_{CE} = -1\text{ V, } I_C = -0.1\text{ A}$
DC current transfer ratio	h_{FE2}	100	—	—	—	$V_{CE} = -1\text{ V, } I_C = -3\text{ A}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	-0.2	-0.3	V	$I_C = -2\text{ A, } I_B = -0.2\text{ A}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	-1.2	V	$I_C = -2\text{ A, } I_B = -0.2\text{ A}$

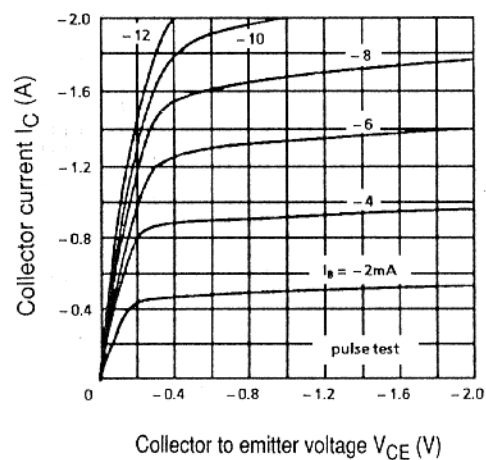
* The 2SB1518 is grouped by h_{FE1} as follows.

Grade	D	E
Mark	JH	JJ
h_{FE1}	160 to 320	250 to 500

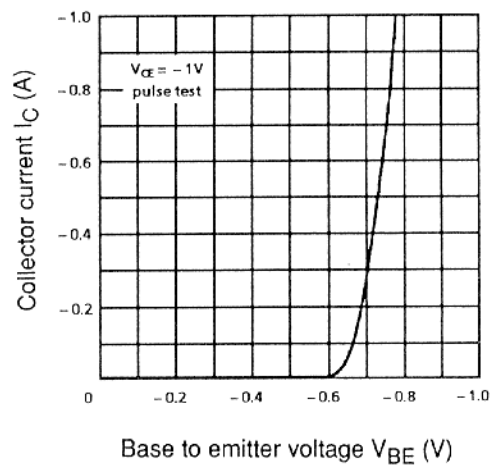
Maximum collector dissipation curve



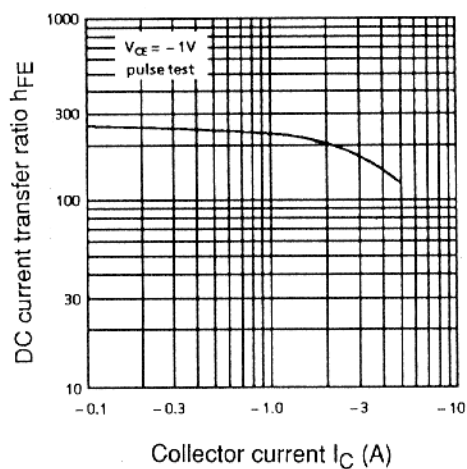
Typical output characteristics



Typical transfer characteristics



DC current transfer ratio vs. collector current



2SB1518

