

2SB1407(L)(S)

Silicon PNP Epitaxial
Low Frequency Power Amplifier
Complementary Pair with 2SD2121(L)(S)

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rating	Unit
Collector to base voltage	V _{CBO}	−35	V
Collector to emitter voltage	V _{CEO}	−35	V
Emitter to base voltage	V _{EBO}	−5	V
Collector current	I _C	−2.5	A
Collector peak current	i _{C(peak)}	−3	A
Collector power dissipation	P _C ^{*1}	18	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	−55 to +150	°C

Note: 1. Value at T_C = 25°C.

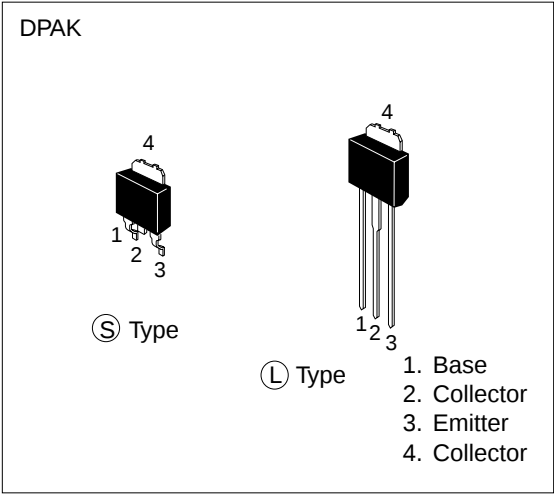
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test condition
Collector to base breakdown voltage	V _{(BR)CBO}	−35	—	—	V	I _C = −1 mA, I _E = 0
Collector to emitter breakdown voltage	V _{(BR)CEO}	−35	—	—	V	I _C = −10 mA, R _{BE} = ∞
Emitter to base breakdown voltage	V _{(BR)EBO}	−5	—	—	V	I _E = −1 mA, I _C = 0
Collector cutoff current	I _{CBO}	—	—	−20	μA	V _{CB} = −35 V, I _E = 0
DC current transfer ratio	h _{FE1} ^{*1}	60	—	320		V _{CE} = −2 V, I _C = −0.5 A ^{*2}
	h _{FE2}	20	—	—		V _{CE} = −2 V, I _C = −1.5 A ^{*2}
Base to emitter voltage	V _{BE}	—	—	−1.5	V	V _{CE} = −2 V, I _C = −1.5 A ^{*2}
Collector to emitter saturation voltage	V _{CE(sat)}	—	—	−1.0	V	I _C = −2 A, I _B = −0.2 A ^{*2}

Notes: 1. The 2SB1407(L)(S) is grouped by h_{FE1} as follows.

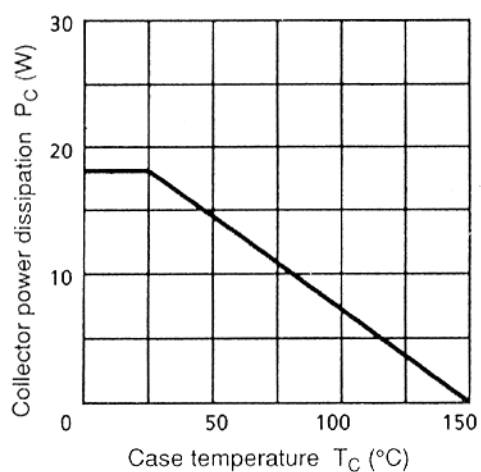
B	C	D
60 to 120	100 to 200	160 to 320

2. Pulse Test.

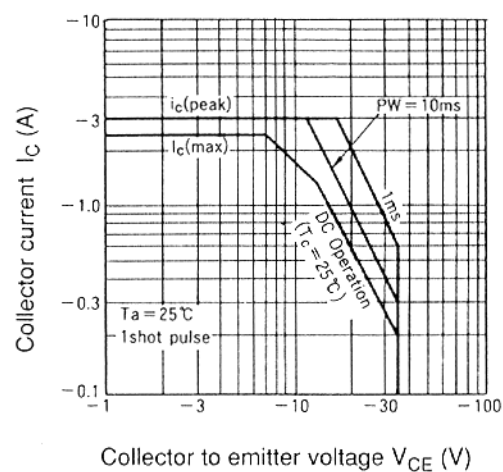


2SB1407 (L/S)

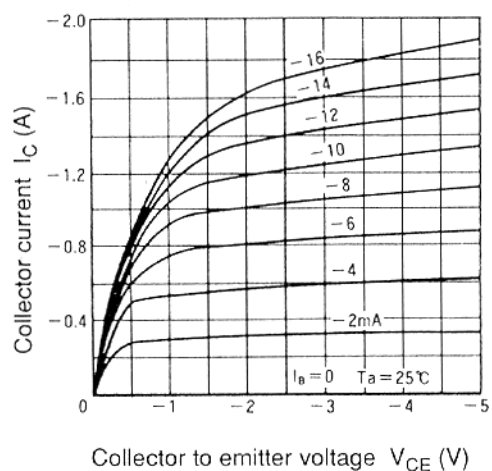
Maximum Collector Dissipation Curve



Area of Safe Operation



Typical Output Characteristics



DC Current Transfer Ratio vs. Collector Current

