

2SD2121 (L)/(S)

**Silicon NPN Epitaxial
Low Frequency Power Amplifier
Complementary Pair with 2SB1407 (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.

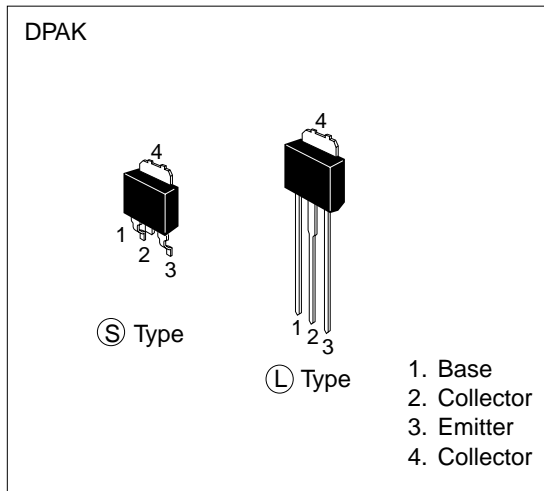
Electrical Characteristics (Ta = 25°C)

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 2SD2121(L)/(S) is grouped by h_{FE1} as follows.

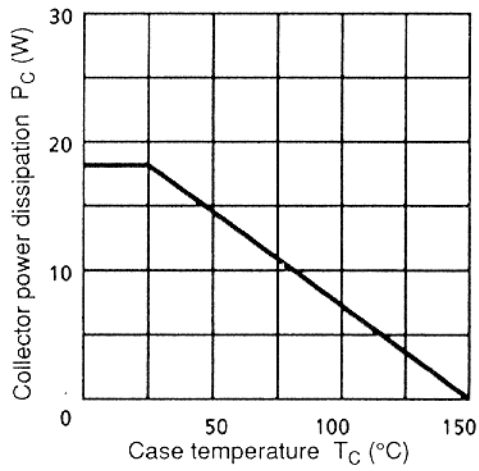
B	C	D
60 to 120	100 to 200	160 to 320

2. Pulse Test.

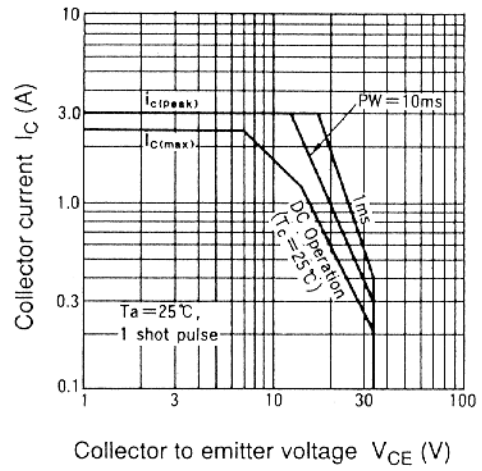


2SD2121 (L/S)

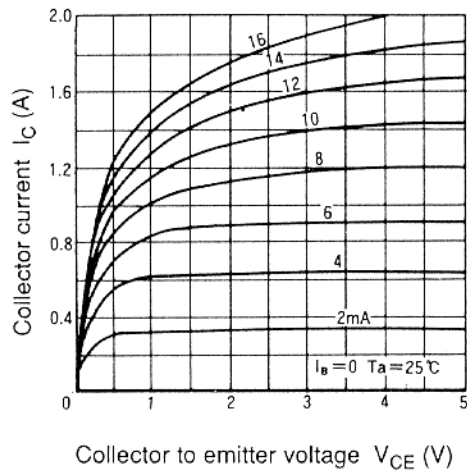
Maximum Collector Dissipation Curve



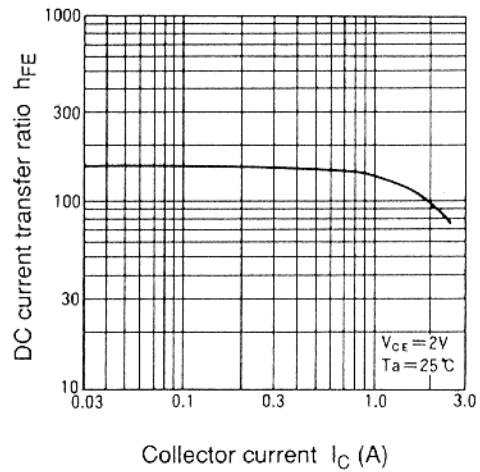
Area of Safe Operation



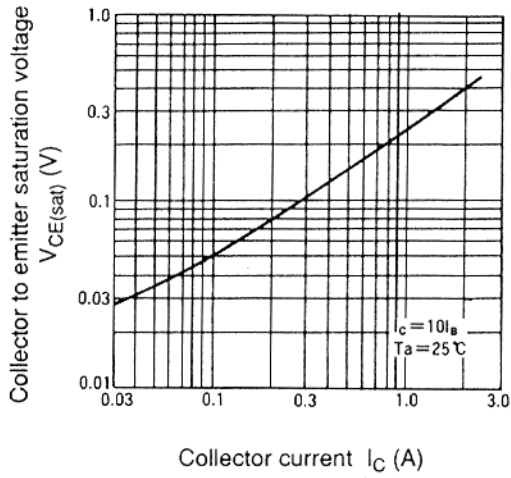
Typical Output Characteristics



DC Current Transfer Ratio vs. Collector Current



Collector to Emitter Saturation Voltage vs. Collector Current



Typical Transfer Characteristics

