

2SB1404

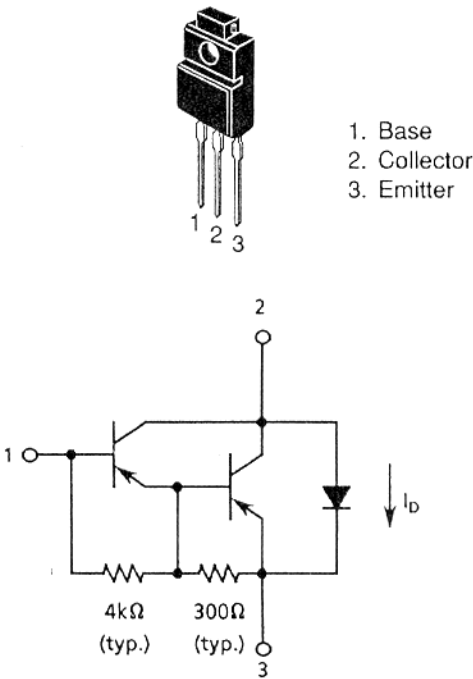
Silicon PNP Triple Diffused
Low Frequency Power Amplifier

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rating	Unit
Collector to base voltage	V _{CBO}	-120	V
Collector to emitter voltage	V _{CEO}	-120	V
Emitter to base voltage	V _{EBO}	-7	V
Collector current	I _C	-3	A
Collector peak current	i _{C(peak)}	-6	A
Collector power dissipation	P _C	2	W
	P _C ⁻¹	25	
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Note: 1. Value at T_C = 25°C.

TO-220 FM



Electrical Characteristics (Ta = 25°C)

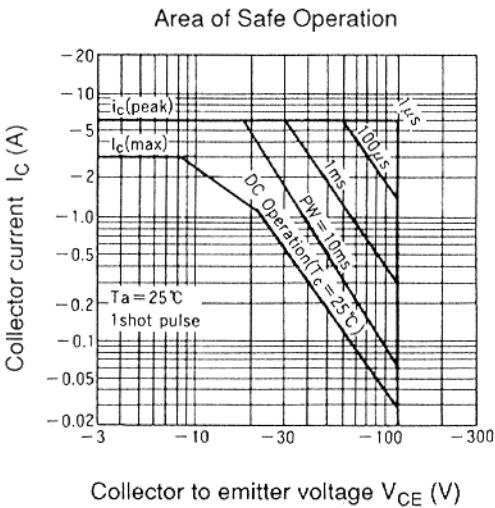
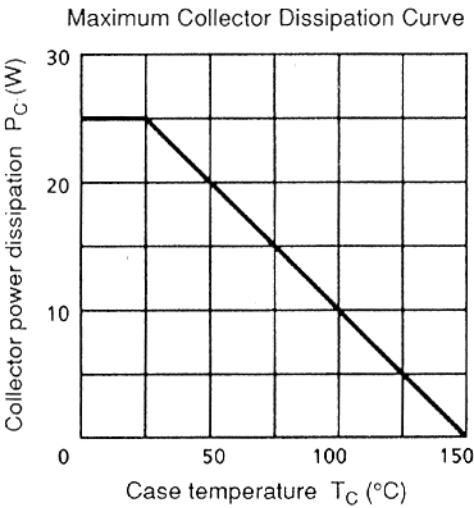
Item	Symbol	Min	Typ	Max	Unit	Test condition
Collector to base breakdown voltage	V _{(BR)CBO}	-120	—	—	V	I _C = -0.1 mA, I _E = 0
Collector to emitter breakdown voltage	V _{(BR)CEO}	-120	—	—	V	I _C = -25 mA, R _{BE} = ∞
Emitter to base breakdown voltage	V _{(BR)EBO}	-7	—	—	V	I _E = -50 mA, I _C = 0
Collector cutoff current	I _{CBO}	—	—	-10	μA	V _{CB} = -100 V, I _E = 0
	I _{CEO}	—	—	-10		V _{CE} = -100 V, R _{BE} = ∞
DC current transfer ratio	h _{FE}	1000	—	20000		V _{CE} = -3 V, I _C = -1.5 A ⁻¹
Collector to emitter saturation voltage	V _{CE(sat)1}	—	—	-1.5	V	I _C = -1.5 A, I _B = -3 mA ⁻¹
	V _{CE(sat)2}	—	—	-3.0		I _C = -3 A, I _B = -30 mA ⁻¹

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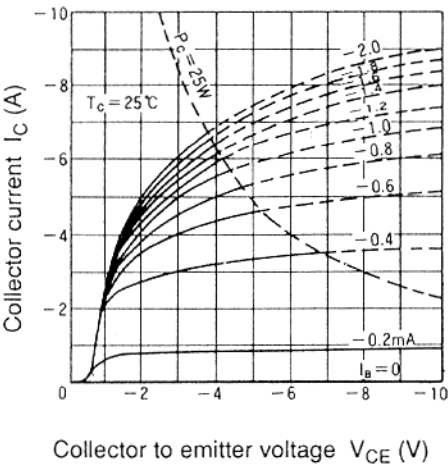
Electrical Characteristics (Ta = 25°C) (cont)

Item	Symbol	Min	Typ	Max	Unit	Test condition
Base to emitter saturation voltage	$V_{BE(sat)1}$	—	—	−2.0	V	$I_C = −1.5\text{ A}, I_B = −3\text{ mA}^{*1}$
	$V_{BE(sat)2}$	—	—	−3.5		$I_C = −3\text{ A}, I_B = −30\text{ mA}^{*1}$

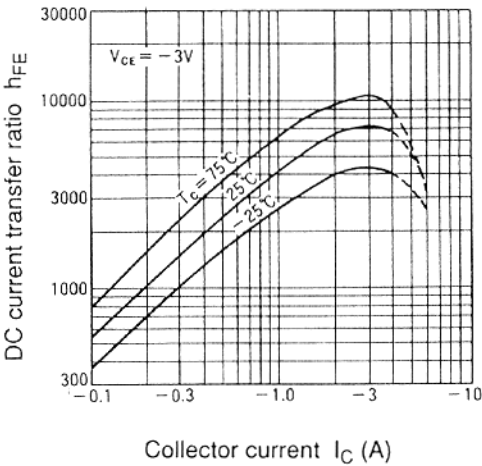
Note: 1. Pulse Test.
See switching characteristic curve of 2SB765(K).



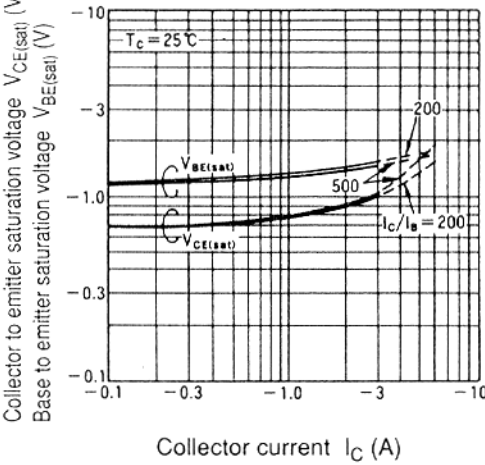
Typical Output Characteristics



DC Current Transfer Ratio vs. Collector Current



Saturation Voltage vs. Collector Current



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