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# 2SB1401

Silicon PNP Triple Diffused

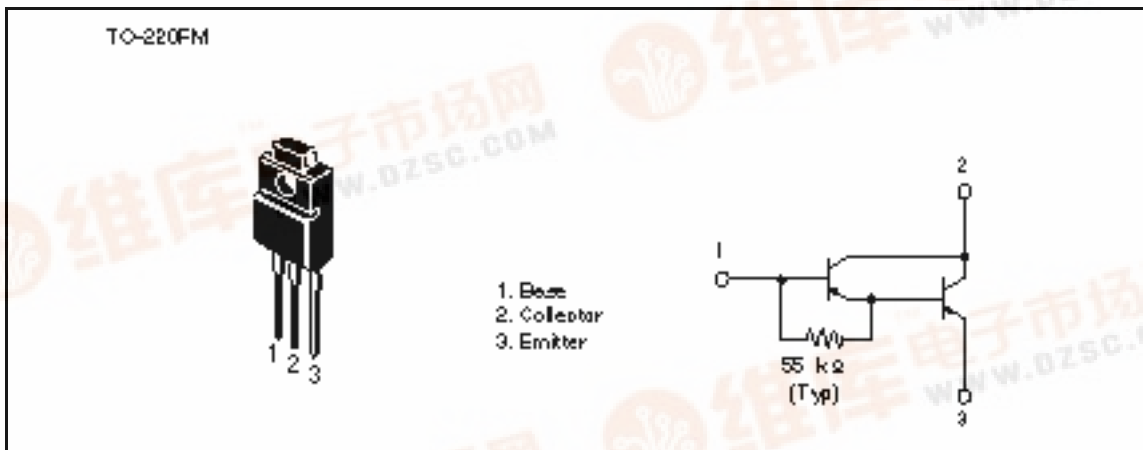
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## Application

Low frequency power amplifier

## Outline



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### Absolute Maximum Ratings (Ta = 25°C)

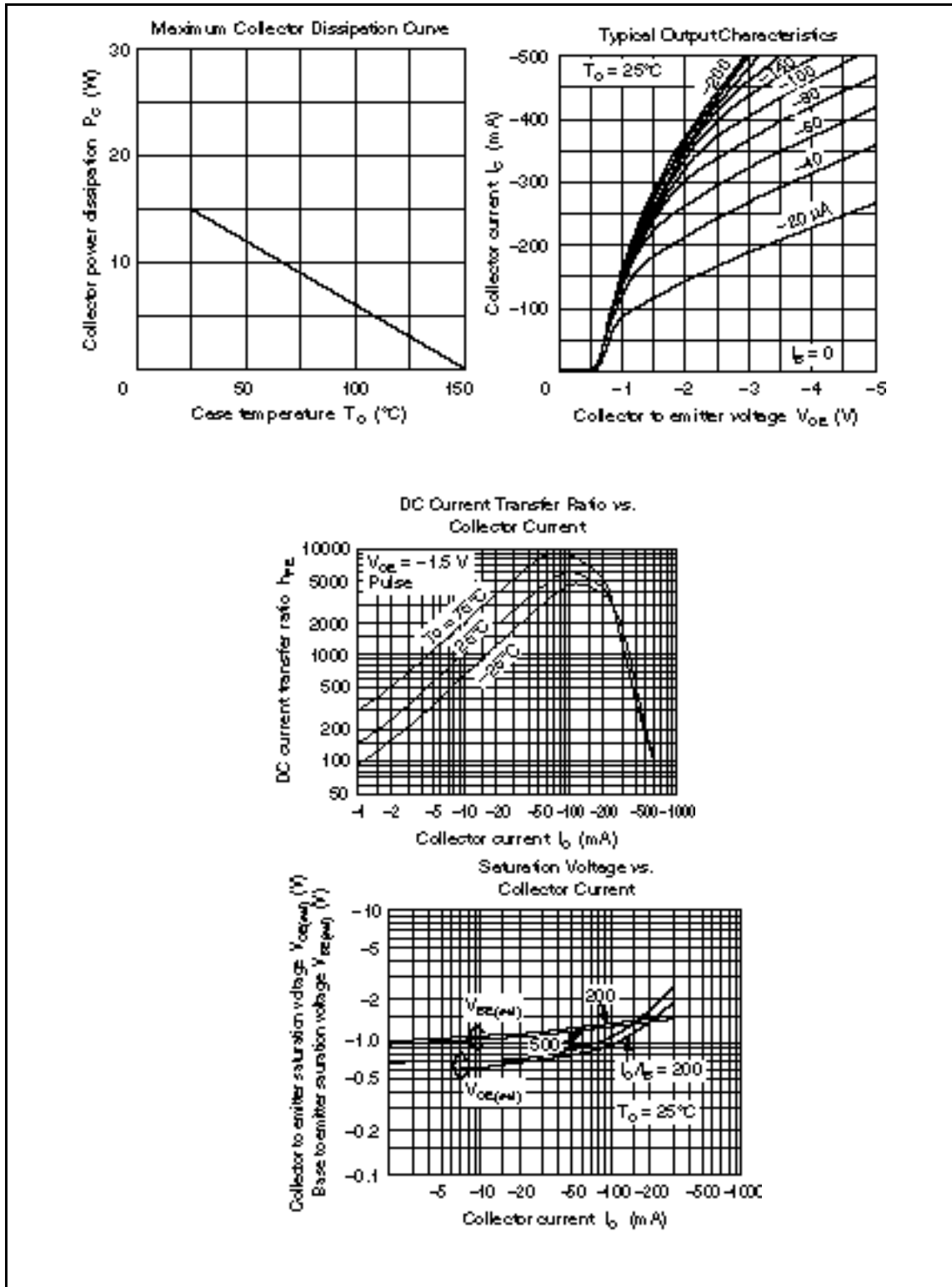
Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	-300	V
Collector to emitter voltage	$V_{CEO}$	-300	V
Emitter to base voltage	$V_{EBO}$	-7	V
Collector current	$I_C$	-0.3	A
Collector peak current	$I_{C(peak)}$	-0.6	A
Collector power dissipation	$P_C$	2	W
	$P_C^{*1}$	15	
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

Note: 1. Value at  $T_C = 25^\circ\text{C}$ .

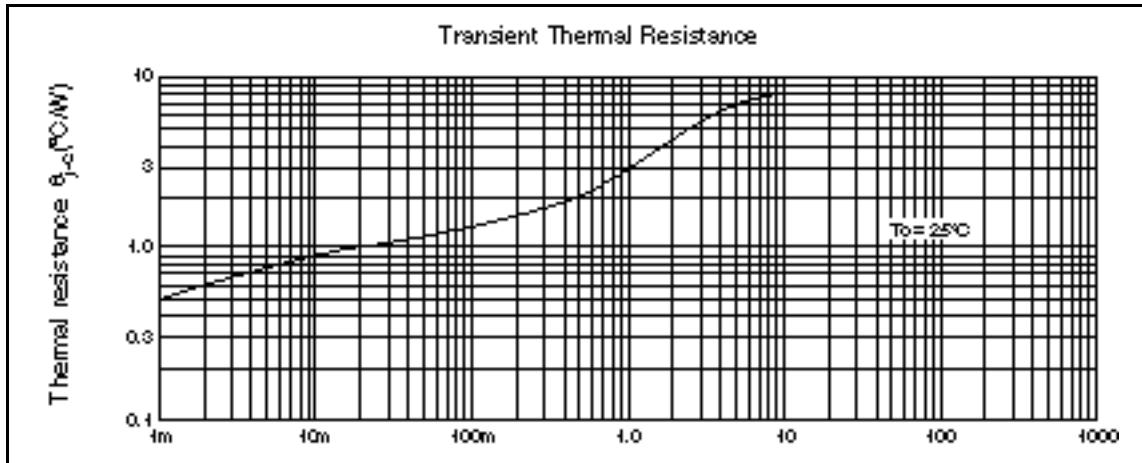
### Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-300	—	—	V	$I_C = -1\text{ mA}$ , $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-300	—	—	V	$I_C = -10\text{ mA}$ , $R_{BE} =$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-7	—	—	V	$I_E = -1\text{ mA}$ , $I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	-10	$\mu\text{A}$	$V_{CB} = -300\text{ V}$ , $I_E = 0$
	$I_{CEO}$	—	—	-10		$V_{CE} = -60\text{ V}$ , $R_{BE} =$
	$I_{EBO}$	—	—	-10		$V_{EB} = -5\text{ V}$ , $I_C = 0$
DC current transfer ratio	$h_{FE1}$	1000	—	—		$V_{CE} = -1.5\text{ V}$ , $I_C = -20\text{ mA}^{*1}$
	$h_{FE2}$	1500	—	—		$V_{CE} = -1.5\text{ V}$ , $I_C = -100\text{ mA}^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-1.5	V	$I_C = -100\text{ mA}$ , $I_B = -0.2\text{ mA}^{*1}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	-2.0	V	$I_C = -100\text{ mA}$ , $I_B = -0.2\text{ mA}^{*1}$

Note: 1. Pulse test.



## 2SB1401



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