
2SB1401

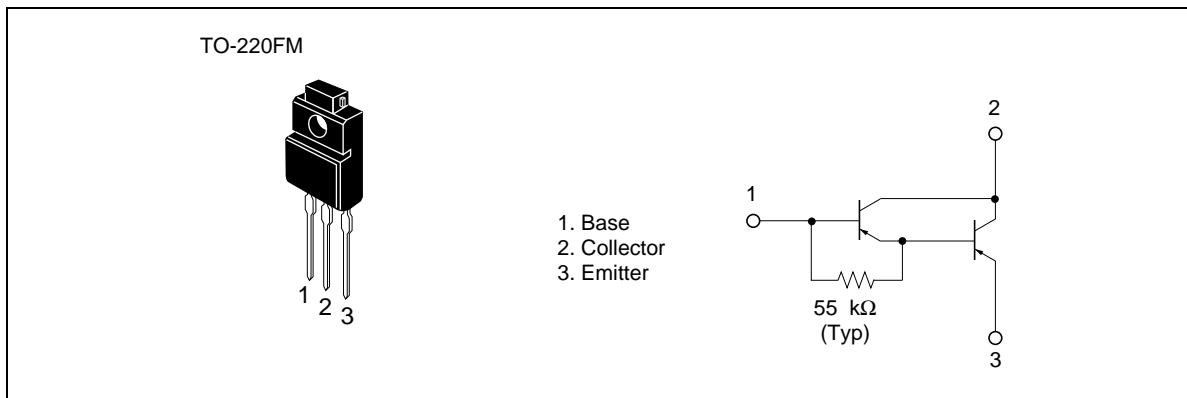
Silicon PNP Triple Diffused

HITACHI

Application

Low frequency power amplifier

Outline



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Absolute Maximum Ratings (Ta = 25°C)

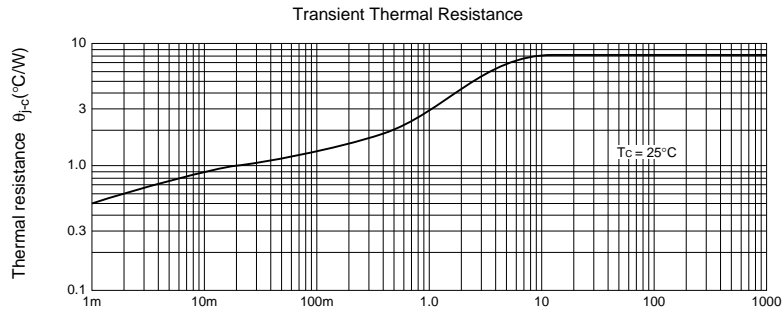
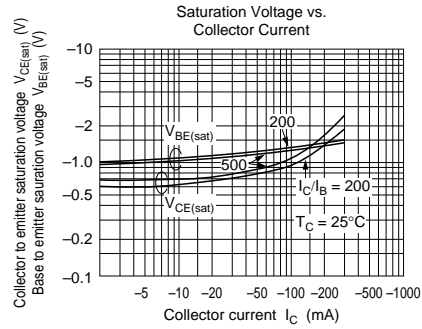
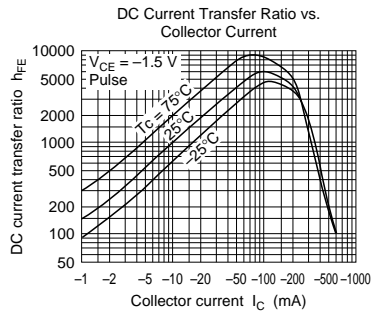
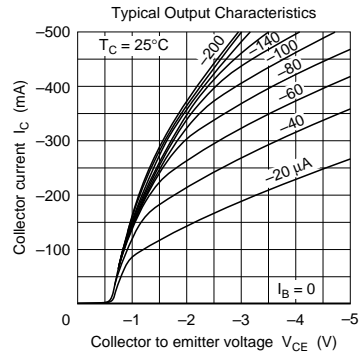
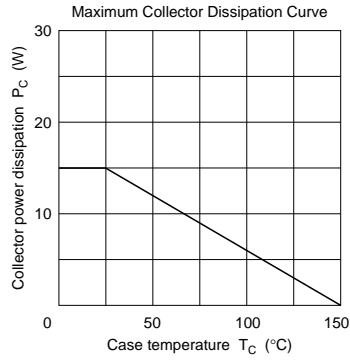
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-300	V
Collector to emitter voltage	V_{CEO}	-300	V
Emitter to base voltage	V_{EBO}	-7	V
Collector current	I_C	-0.3	A
Collector peak current	$I_{C(peak)}$	-0.6	A
Collector power dissipation	P_C	2	W
	P_C^{*1}	15	
Junction temperature	T_j	150	°C
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	$I_C = -10\text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-7	—	—	V	$I_E = -1\text{ mA}$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	-10	μA	$V_{CB} = -300\text{ V}$, $I_E = 0$
	I_{CEO}	—	—	-10		$V_{CE} = -60\text{ V}$, $R_{BE} = \infty$
	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.



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