HITACHI

2SD2344

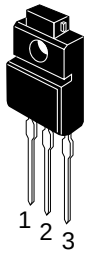
Silicon NPN Triple Diffused
Low Frequency Power Amplifier

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	350	V
Collector to emitter voltage	V_{CEO}	150	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I_C	7	A
Collector peak current	$i_{C(peak)}$	10	A
Collector power dissipation	P_C*1	20	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Note: 1. Value at T_C = 25°C.

TO-220 FM



1. Base
2. Collector
3. Emitter

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test condition
Collector to base breakdown voltage	$V_{(BR)CBO}$	350	—	—	V	I_C = 1 mA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	150	—	—	V	I_C = 10 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	I_E = 10 mA, I_C = 0
Collector cutoff current	I_{CBO}	—	—	0.1	mA	V_{CB} = 280 V, I_E = 0
	I_{CEO}	—	—	0.5	mA	V_{CE} = 120 V, R_{BE} = ∞
Emitter cutoff Current	I_{EBO}	—	—	0.1	mA	V_{EB} = 5 V, I_C = 0
DC current transfer ratio	h_{FE}	25	—	—		V_{CE} = 5 V, I_C = 5 A*1
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.5	V	I_C = 5 A, I_B = 0.5 A*1
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.2	V	I_C = 5 A, I_B = 0.5 A*1

Note: 1. Pulse Test.

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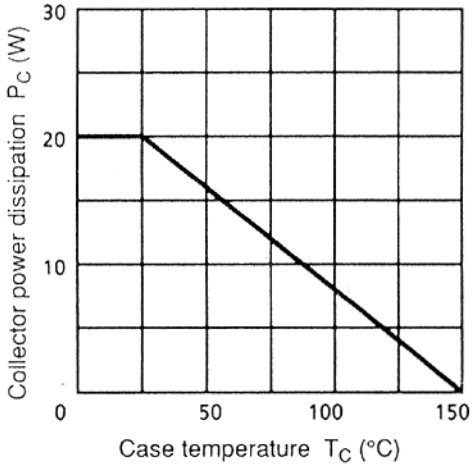
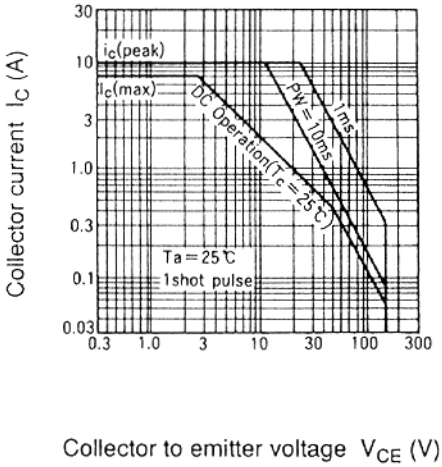
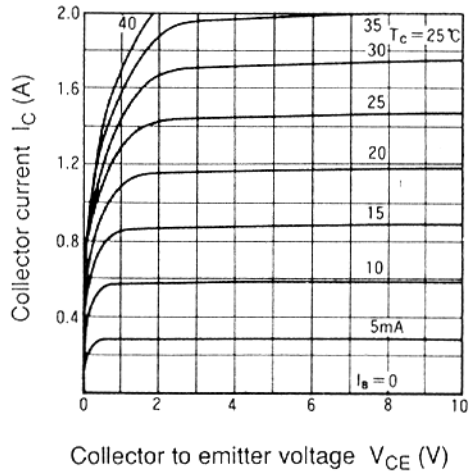
Maximum Collector Power Dissipation Curve



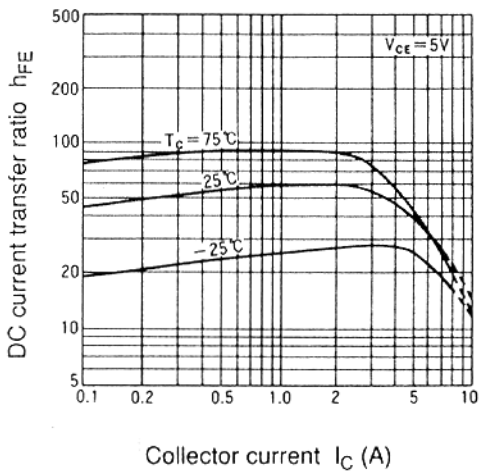
Area of Safe Operation



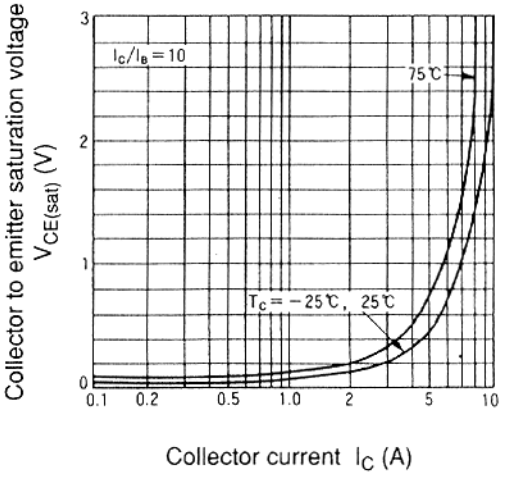
Typical Output Characteristics



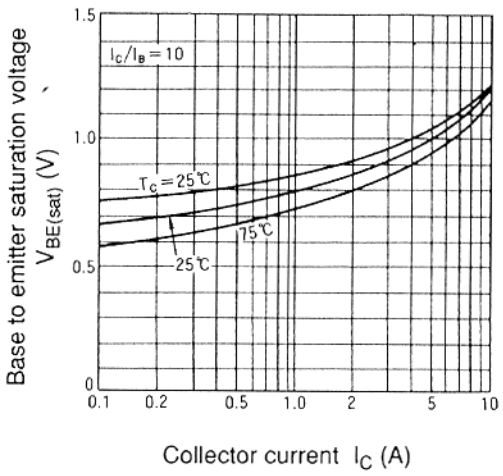
DC Current Transfer Ratio vs. Collector Current



Collector to Emitter Saturation Voltage vs. Collector Current



Base to Emitter Saturation Voltage vs. Collector Current



Transient Thermal Resistance