2SB1392

Silicon PNP Triple Diffused

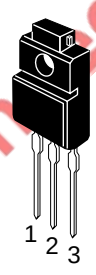
ADE-208-872 (Z)
1st. Edition
September 2000

Application

Low frequency power amplifier

Outline

TO-220FM



1. Base
2. Collector
3. Emitter

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	–70	V
Collector to emitter voltage	V_{CEO}	–60	V
Emitter to base voltage	V_{EBO}	–5	V
Collector current	I_C	–4	A
Collector peak current	$I_{C(peak)}$	–8	A
Collector power dissipation	P_C	2	W
	P_C*[1]	25	
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

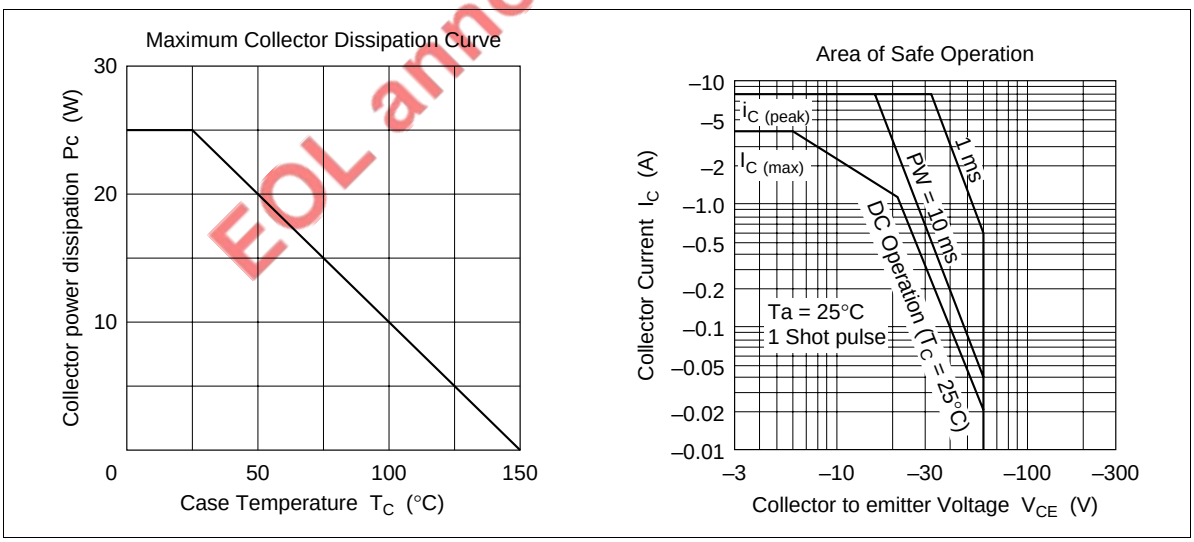
Note: 1. Value at T_C = 25°C.

Electrical Characteristics (Ta = 25°C)

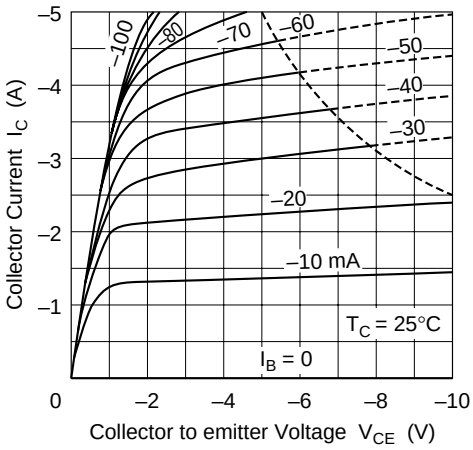
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	–70	—	—	V	I_C = –10 µA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	–60	—	—	V	I_C = –50 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	–5	—	—	V	I_E = –10 µA, I_C = 0
Collector cutoff current	I_{CBO}	—	—	–10	µA	V_{CB} = –50 V, I_E = 0
	I_{CEO}	—	—	–10		V_{CE} = –50 V, R_{BE} = ∞
DC current transfer ratio	h_{FE1}*2	60	—	200		V_{CE} = –4 V, I_C = –1 A*1
	h_{FE2}	35	—	—		V_{CE} = –4 V, I_C = –0.1 A*1
Base to emitter voltage	V_{BE}	—	—	–1.0	V	V_{CE} = –4 V, I_C = –1 A*1
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	–1.0	V	I_C = –2.0 A, I_B = –0.2 A*1
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	–1.2	V	I_C = –2.0 A, I_B = –0.2 A*1

Notes: 1. Pulse test.
2. The 2SB1392 is grouped by h_{FE1} as follows.

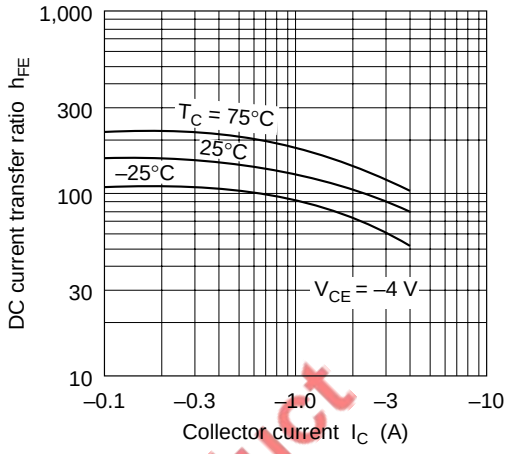
B	C
60 to 120	100 to 200



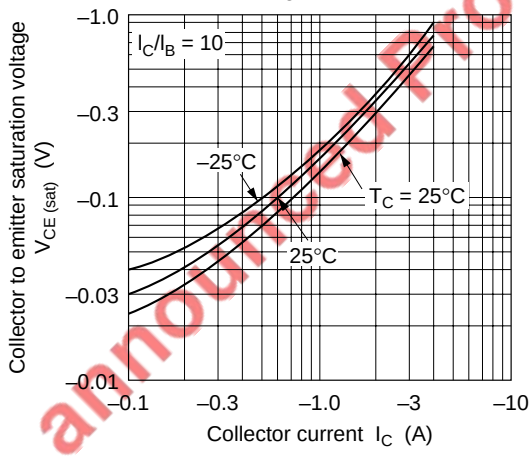
Typical Output Characteristics



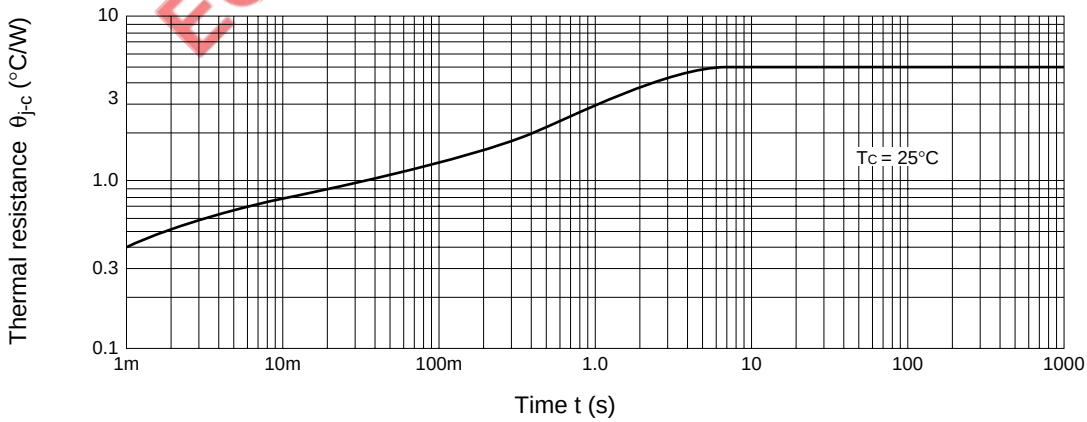
DC Current Transfer Ratio vs. Collector Current



Saturation Voltage vs. Collector Current



Transient Thermal Resistance



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