2SA1390

Silicon PNP Epitaxial

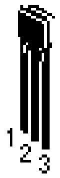
HITACHI

Application

Low frequency amplifier

Outline

SPAK



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	–35	V
Collector to emitter voltage	V_{CEO}	–35	V
Emitter to base voltage	V_{EBO}	–4	V
Collector current	I_C	–500	mA
Collector power dissipation	P_C	300	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

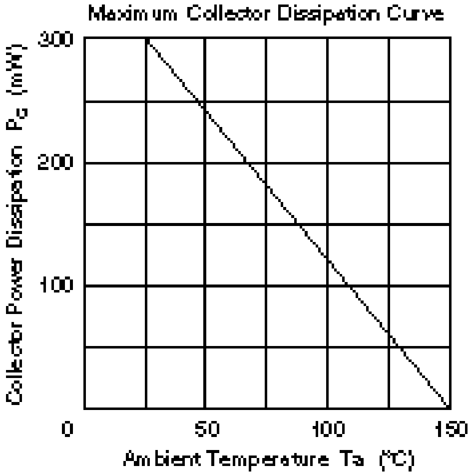
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	–35	—	—	V	I_C = –10 µA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	–35	—	—	V	I_C = –1 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	–4	—	—	V	I_E = –10 µA, I_C = 0
Collector cutoff current	I_{CBO}	—	—	–0.5	µA	V_{CB} = –20 V, I_E = 0
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	–0.2	–0.6	V	I_C = –150 mA, I_B = –15 mA*[2]
DC current transfer ratio	h_{FE1}*[1]	60	—	320		V_{CE} = –3 V, I_C = –10 mA
DC current transfer ratio	h_{FE2}	10	—	—		V_{CE} = –3 V, I_C = –500 mA*[2]
Base to emitter voltage	V_{BE}	—	–0.64	—	V	V_{CE} = –3 V, I_C = –10 mA

Notes: 1. The 2SA1390 is grouped by h_{FE1} as follows.
2. Pulse test

B	C	D
60 to 120	100 to 200	160 to 320

See characteristic curves of 2SA673.


Maximum Collector Dissipation Curve
300
200
100
0
50
100
150
Collector Power Dissipation P_C (mW)
Ambient Temperature Ta (°C)

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