

Silicon PNP Epitaxial High Voltage Amplifier

Features

- Low saturation voltage
 $V_{CE(sat)} \leq -0.3 \text{ V}$
- Large current capacitance
 $I_C = -2 \text{ A}$

Table 1 Absolute Maximum Ratings
($T_a = 25^\circ\text{C}$)

Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-80	V
Collector to emitter voltage	V_{CEO}	-80	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_C	-2	A
Peak collector current	$i_{C(\text{peak})}^*$	-3	A
Collector power dissipation	P_C^{**}	1	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

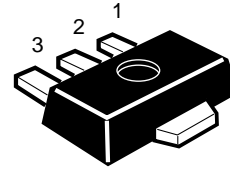
* $P_W \leq 10 \text{ ms}$, duty cycle $\leq 20\%$

** When using the alumina ceramic board ($12.5 \times 20 \times 0.7 \text{ mm}$)

Table 2 Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test condition
Collector to base breakdown voltage	$V_{(BR)CBO}$	-80	—	—	V	$I_C = -10 \mu\text{A}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-80	—	—	V	$I_C = -1 \text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-5	—	—	V	$I_C = -10 \mu\text{A}$, $I_E = 0$
Collector cutoff current	I_{CBO}	—	—	-1	μA	$V_{CB} = -65 \text{ V}$, $I_E = 0$
Collector cutoff current	I_{CEO}	—	—	-5	μA	$V_{CE} = -65 \text{ V}$, $R_{BE} = \infty$
Emitter cutoff current	I_{EBO}	—	—	-1	μA	$V_{EB} = -4 \text{ V}$, $I_C = 0$
DC current transfer ratio	h_{FE1}	120	—	300	—	$V_{CE} = -2 \text{ V}$, $I_C = -0.5 \text{ A}^*$
DC current transfer ratio	h_{FE2}	40	—	—	—	$V_{CE} = -2 \text{ V}$, $I_C = -1.5 \text{ A}^*$

UPAK



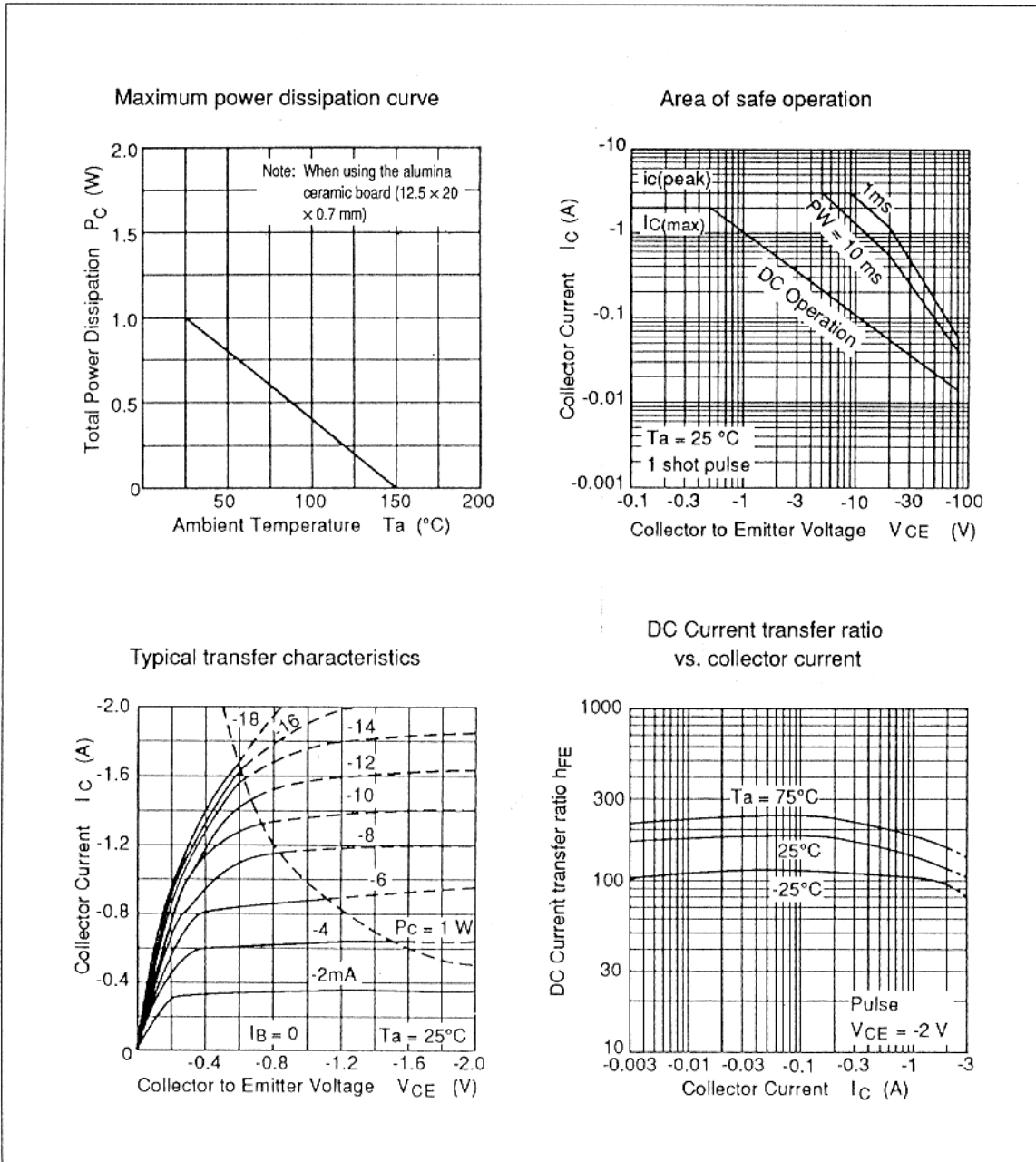
1. Base
2. Collector
3. Emitter

Table 2 Electrical Characteristics (Ta = 25°C) (cont)

Item	Symbol	Min	Typ	Max	Unit	Test condition
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-0.3	V	$I_C = -1\text{ A}, I_B = -50\text{ mA}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	-1.2	V	$I_C = -1\text{ A}, I_B = -50\text{ mA}^*$

* Pulse test

** Marking is "GS".



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