
2SA1194(K)

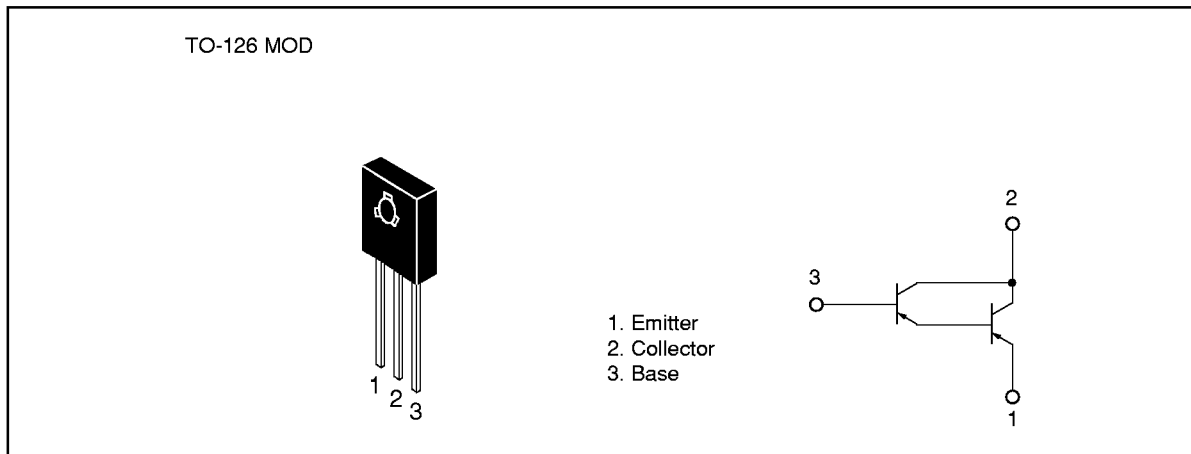
Silicon PNP Epitaxial

HITACHI

Application

High gain amplifier

Outline



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

Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-60	V
Collector to emitter voltage	V_{CEO}	-60	V
Emitter to base voltage	V_{EB0}	-7	V
Collector current	I_C	-1	A
Collector peak current	$I_{C(\text{peak})}$	-2	A
Collector power dissipation	P_C	1	W
	P_C^{*1}	8	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

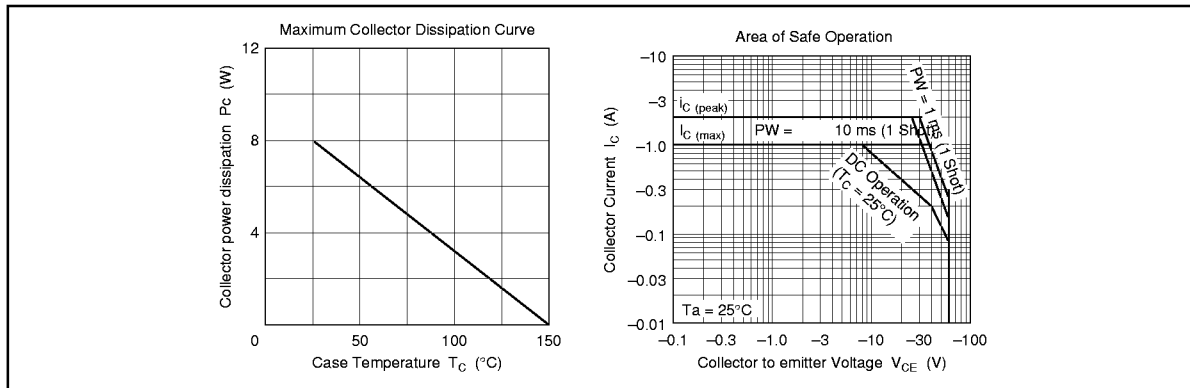
Note: 1. Value at $T_c = 25^\circ\text{C}$

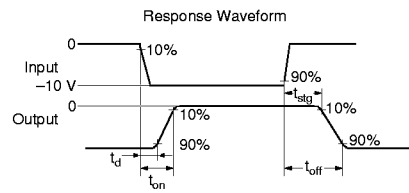
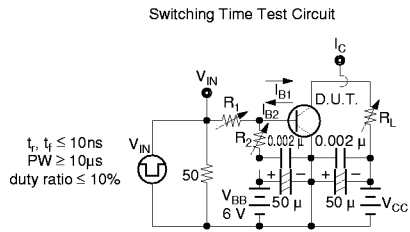
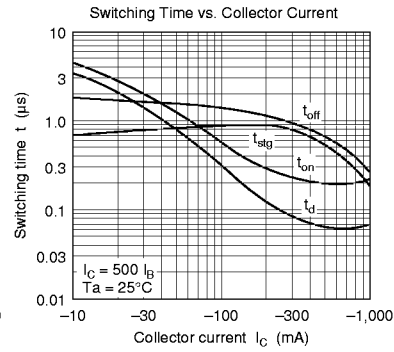
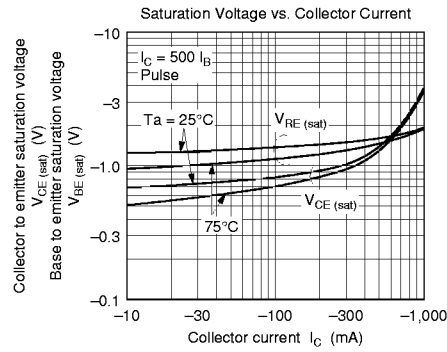
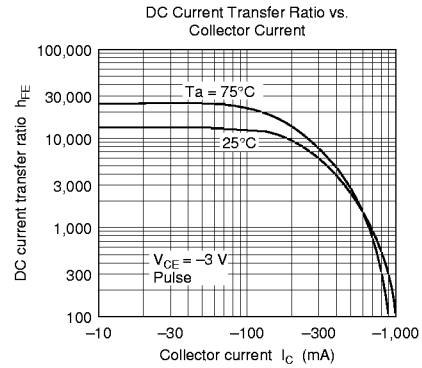
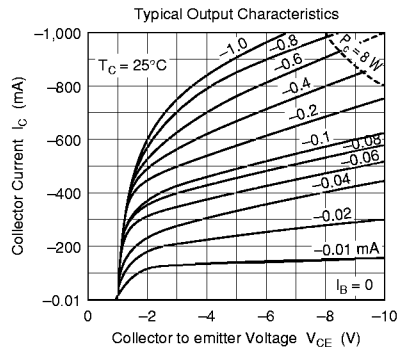
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Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-60	—	—	V	$I_C = -1 \text{ mA}$, $R_{BE} = \infty$
Collector cutoff current	I_{CBO}	—	—	-1.0	μA	$V_{CB} = -60 \text{ V}$, $I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	-1.0	μA	$V_{EB} = -7 \text{ V}$, $I_C = 0$
DC current transfer ratio	h_{FE}	1000	—	—		$V_{CE} = -3 \text{ V}$, $I_C = -500 \text{ mA}^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-2.0	V	$I_C = -500 \text{ mA}$, $I_B = -1 \text{ mA}^{*1}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	-2.0	V	
Turn on time	t_{on}	—	0.7	—	μs	$I_C = -500 \text{ mA}$
Turn off time	t_{off}	—	0.8	—	μs	$I_{B1} = -I_{B2} = -1 \text{ mA}$

Note: 1. Pulse test





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