

2SC2298

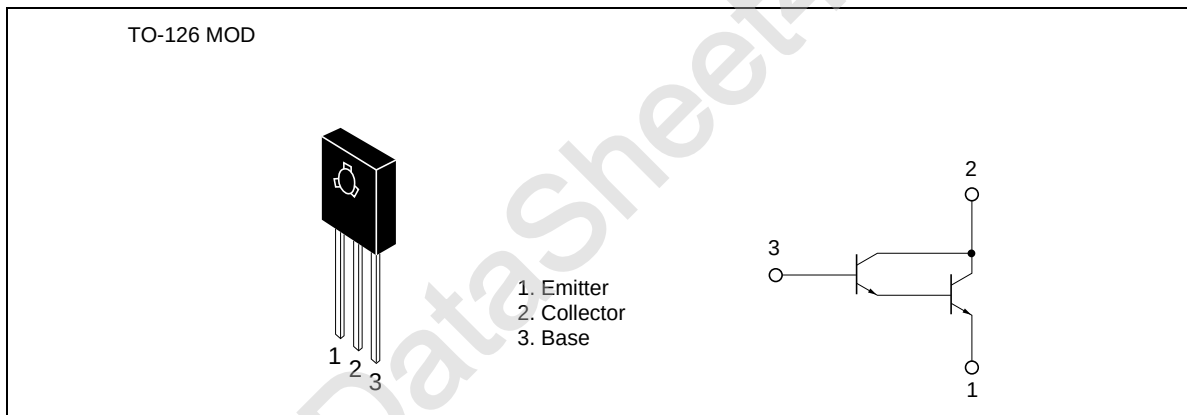
Silicon NPN Epitaxial

HITACHI

Application

High gain amplifier

Outline



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

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	30	V
Collector to emitter voltage	V_{CEO}	30	V
Emitter to base voltage	V_{EBO}	10	V
Collector current	I_C	1.0	A
Collector peak current	$I_{C(\text{peak})}$	1.5	A
Collector power dissipation	P_C	0.8	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 $T_c = 25^\circ\text{C}$.

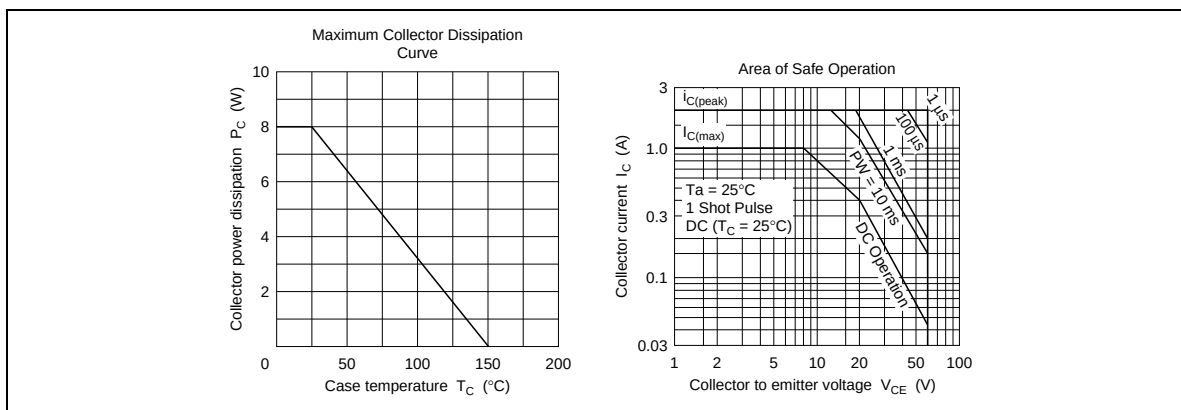
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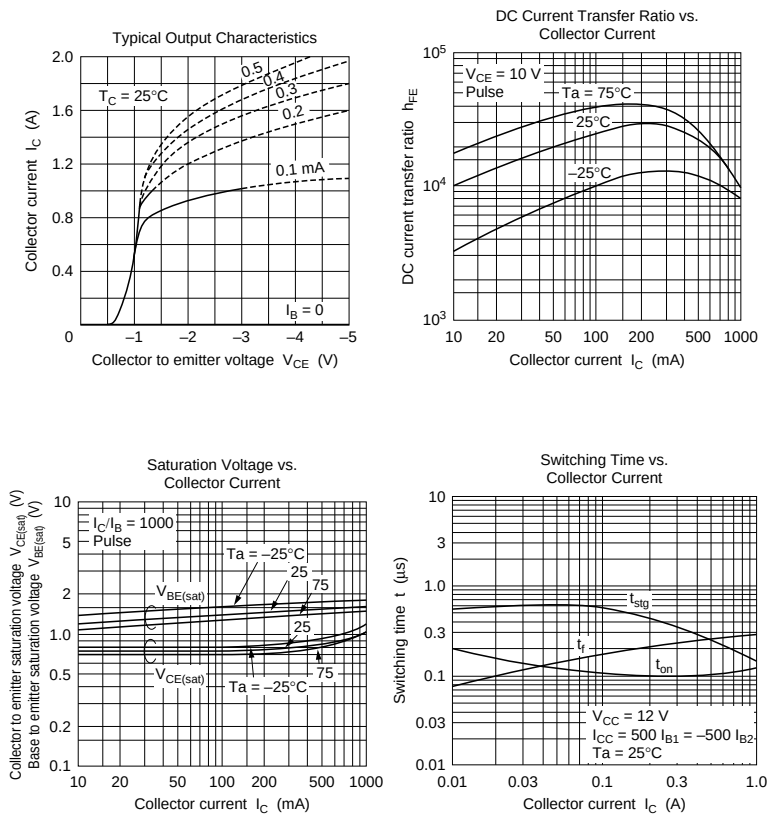
Electrical Characteristics (Ta = 25°C)

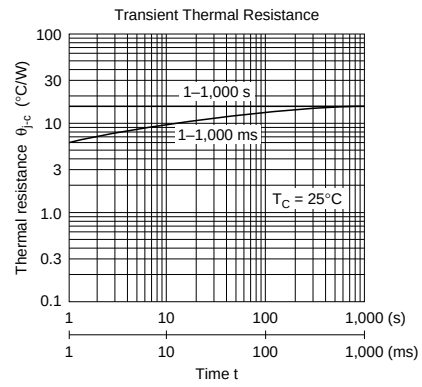
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	30	—	—	V	$I_C = 1 \text{ mA}$, $R_{BE} = \infty$
Emitter cutoff current	I_{EBO}	—	—	10	μA	$V_{EB} = 10 \text{ V}$, $I_C = 0$
DC current transfer ratio	h_{FE1}^{*1}	4000	—	—		$V_{CE} = 3 \text{ V}$, $I_C = 10 \text{ mA}$
	h_{FE2}^{*1}	10000	—	—		$V_{CE} = 3 \text{ V}$, $I_C = 100 \text{ mA}$
	h_{FE3}^{*1}	10000	—	—		$V_{CE} = 3 \text{ V}$, $I_C = 400 \text{ mA}$ (pulse test)
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.5	V	$I_C = 400 \text{ mA}$, $I_B = 0.1 \text{ mA}$ (pulse test)
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	2.0	V	

Note: 1. The 2SC2298 is grouped by h_{FE} as follows.

	B	C
h_{FE1}	more 4000	more 5000
h_{FE2}	more 10000	more 30000
h_{FE3}	more 10000	more 25000







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