

2SD2441

Silicon NPN epitaxial planar type

For low-frequency output amplification

■ Features

- Mini Power type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	10	V
Collector-emitter voltage (Base open)	V_{CEO}	10	V
Emitter-base voltage (Collector open)	V_{EBO}	7	V
Collector current	I_{C}	1.5	A
Peak collector current	I_{CP}	2	A
Collector power dissipation *	P_{C}	1	W
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

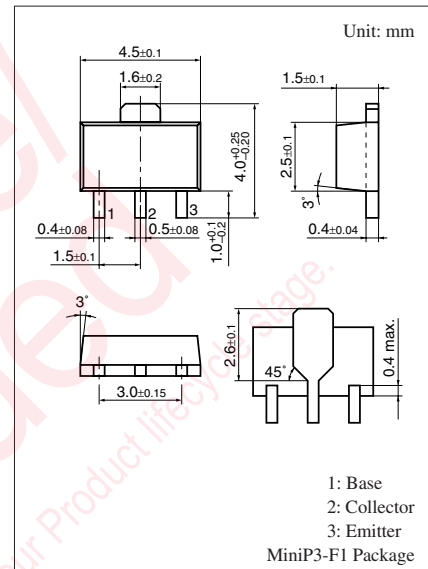
Note) *: Printed circuit board: Copper foil area of 1 cm² or more, and the board thickness of 1.7 mm for the collector portion

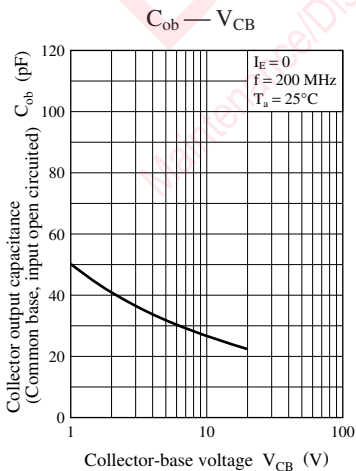
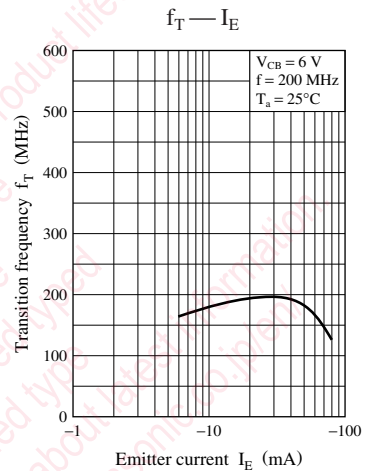
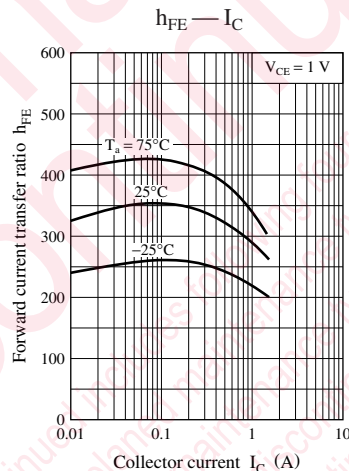
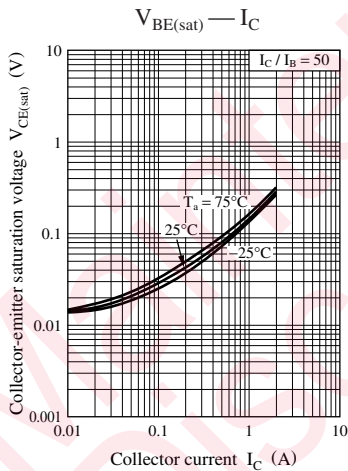
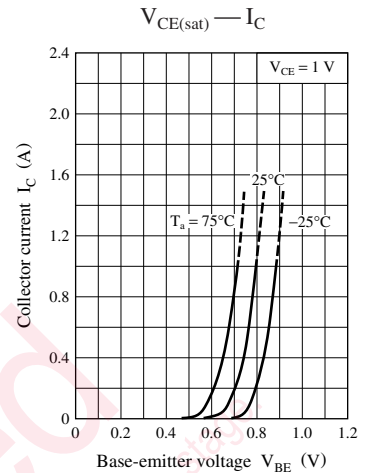
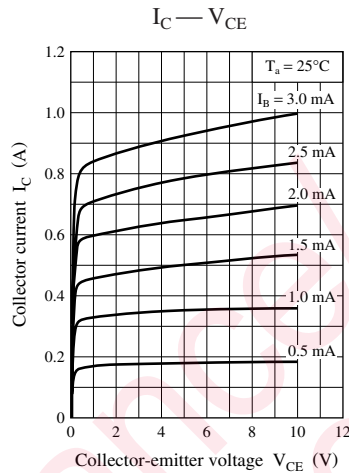
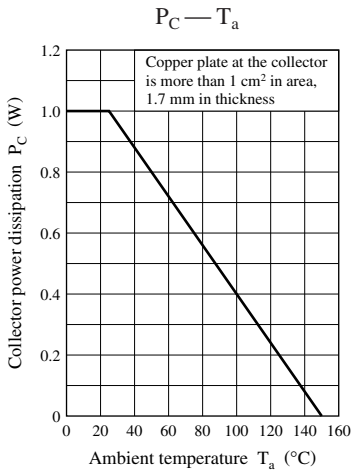
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_{\text{C}} = 10 \mu\text{A}$, $I_{\text{E}} = 0$	10			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_{\text{C}} = 1 \text{ mA}$, $I_{\text{B}} = 0$	10			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_{\text{E}} = 10 \mu\text{A}$, $I_{\text{C}} = 0$	7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{\text{CB}} = 7 \text{ V}$, $I_{\text{E}} = 0$			1	μA
Forward current transfer ratio	h_{FE}	$V_{\text{CE}} = 1 \text{ V}$, $I_{\text{C}} = 400 \text{ mA}$	200		700	—
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = 1 \text{ A}$, $I_{\text{B}} = 25 \text{ mA}$		0.17	0.25	V
Transition frequency	f_{T}	$V_{\text{CB}} = 6 \text{ V}$, $I_{\text{E}} = -50 \text{ mA}$, $f = 200 \text{ MHz}$		190		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{\text{CB}} = 10 \text{ V}$, $I_{\text{E}} = 0$, $f = 1 \text{ MHz}$		50		pF
Forward voltage *	V_{F}	$I_{\text{F}} = 500 \text{ mA}$			1.3	pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Applicable to the built-in diode.





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