Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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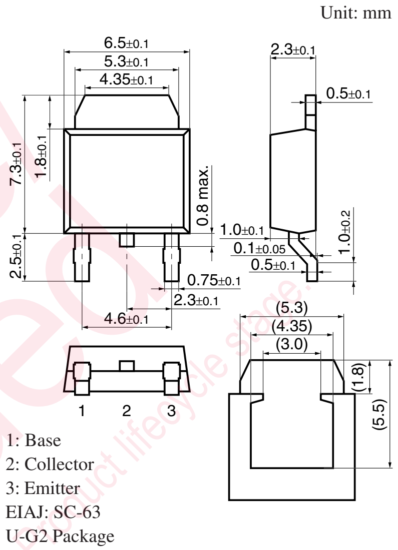
2SD1295

Silicon NPN epitaxial planar type

For low-frequency output amplification
Complementary to 2SB0968



Note) Self-supported type package is also prepared.

■ Features

- Possible to solder radiation fin directly to printed circuit board
- Output of 4 W can be obtained by a complementary pair with 2SB0968

■ Absolute Maximum Ratings $T_C = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	50	V
Collector-emitter voltage (Base open)	V_{CEO}	40	V
Emitter-base voltage (Collector open)	V_{EBO}	5	V
Collector current	I_C	1.5	A
Peak collector current	I_{CP}	3	A
Collector power dissipation	P_C	10	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

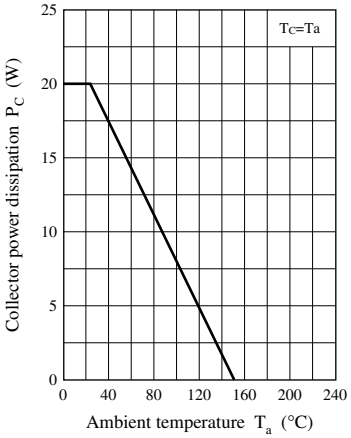
■ Electrical Characteristics $T_C = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emiter open)	V_{CBO}	$I_C = 1$ mA, $I_E = 0$	50			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 2$ mA, $I_B = 0$	40			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 20$ V, $I_E = 0$			1	µA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = 10$ V, $I_B = 0$			100	µA
Emiter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 5$ V, $I_C = 0$			10	µA
Forward current transfer ratio *	h_{FE}	$V_{CE} = 5$ V, $I_C = 1$ A	80		220	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 1.5$ A, $I_B = 0.15$ A			1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 2$ A, $I_B = 0.2$ A			1.5	V
Transition frequency	f_T	$V_{CE} = 5$ V, $I_C = -0.5$ A, f = 200 MHz		150		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = 20$ V, $I_E = 0$, f = 1 MHz		35		pF

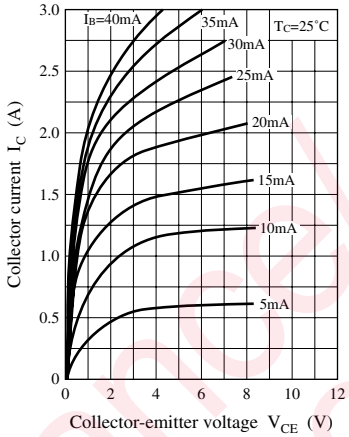
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

Rank	R	S
h_{FE}	80 to 160	120 to 220

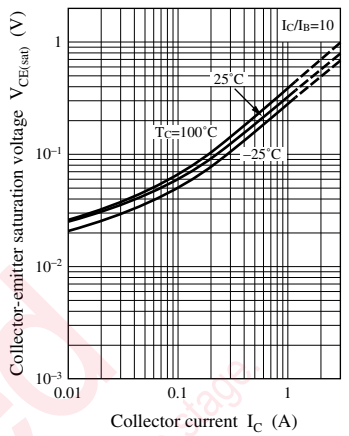
P_C — T_a



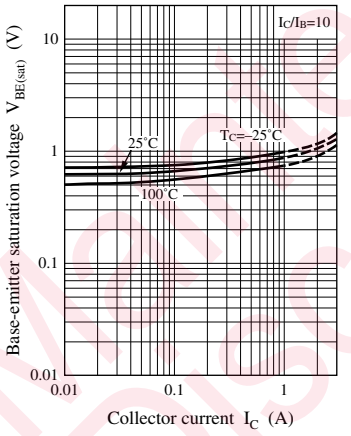
I_C — V_{CE}



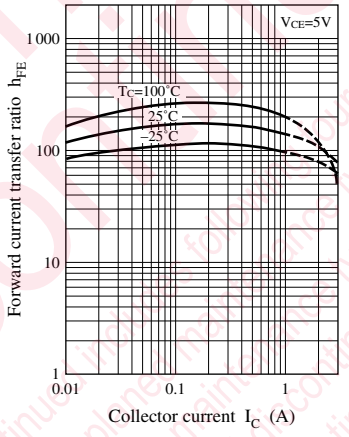
$V_{CE(sat)}$ — I_C



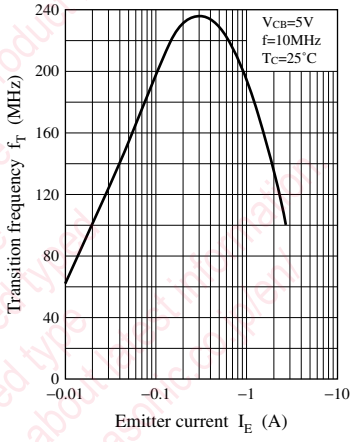
$V_{BE(sat)}$ — I_C



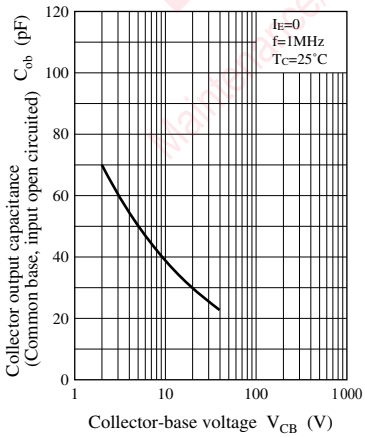
h_{FE} — I_C



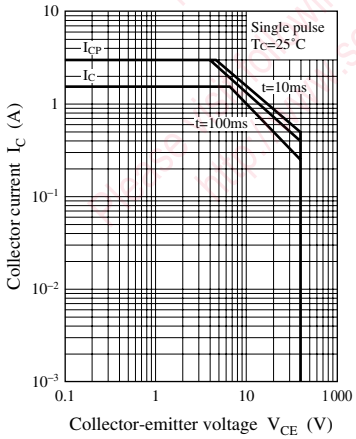
f_T — I_E

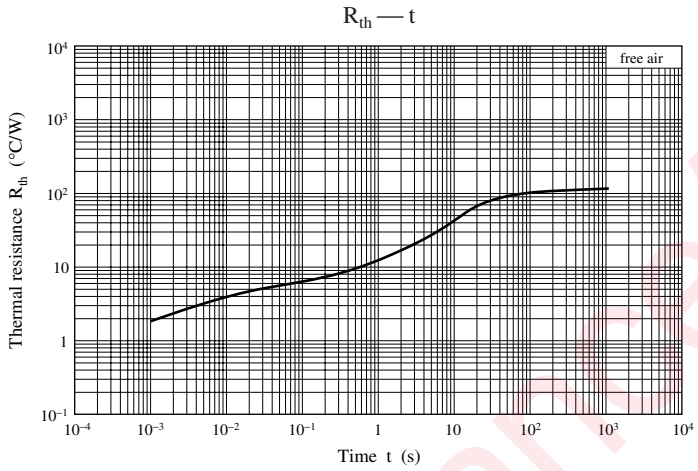


C_{ob} — V_{CB}



Safe operation area





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