

2SD2064

Silicon NPN triple diffusion planar type

For high power amplification

Complementary to 2SB1371

■ Features

- Excellent collector current I_C characteristics of forward current transfer ratio h_{FE}
- Wide safe operation area
- High transition frequency f_T
- Full-peak package which can be installed to the heat sink with one screw

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	120	V
Collector-emitter voltage (Base open)	V_{CEO}	120	V
Emitter-base voltage (Collector open)	V_{EBO}	5	V
Collector current	I_C	6	A
Peak collector current	I_{CP}	10	A
Collector power dissipation	P_C	70	W
$T_a = 25^\circ\text{C}$		3	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

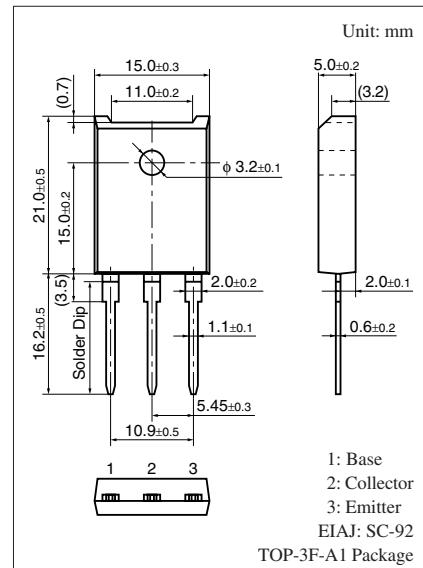
■ Electrical Characteristics $T_C = 25^\circ\text{C} \pm 3^\circ\text{C}$

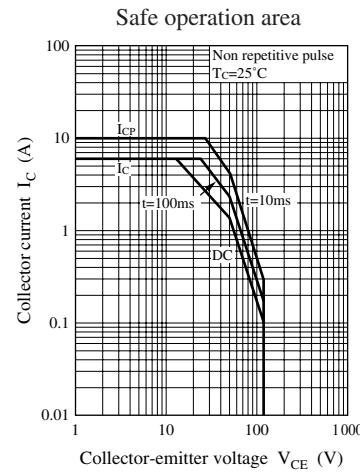
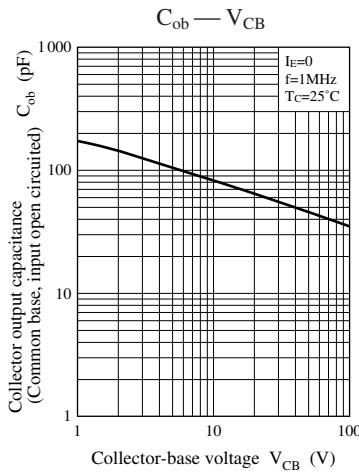
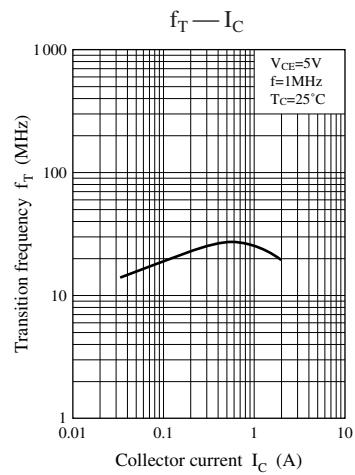
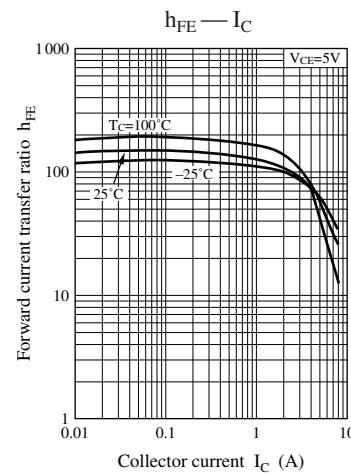
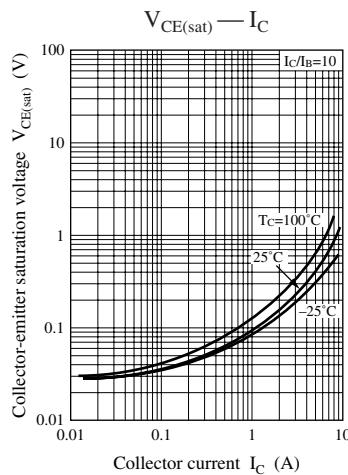
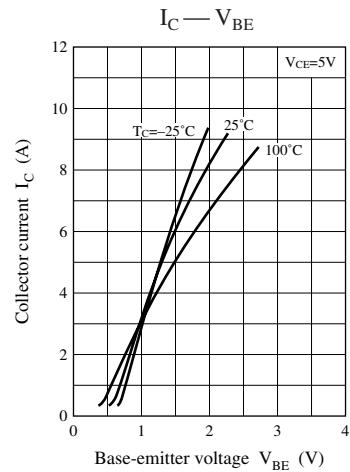
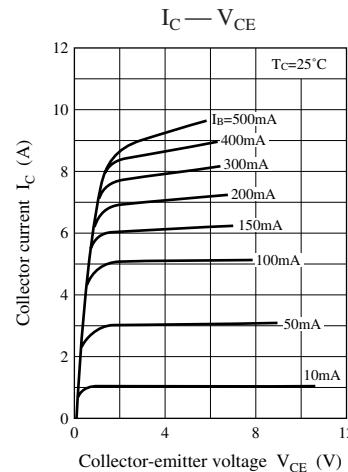
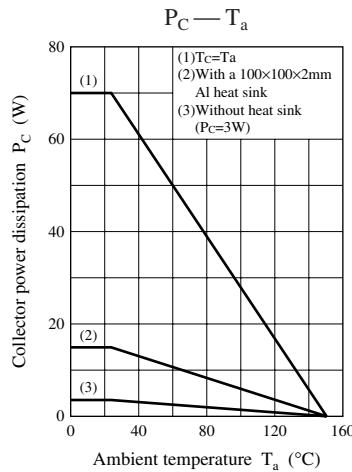
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Base-emitter voltage	V_{BE}	$V_{CE} = 5\text{ V}$, $I_C = 4\text{ A}$			1.8	V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 120\text{ V}$, $I_E = 0$			50	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 3\text{ V}$, $I_C = 0$			50	μA
Forward current transfer ratio	h_{FE1}	$V_{CE} = 5\text{ V}$, $I_C = 20\text{ mA}$	20			—
	h_{FE2}^*	$V_{CE} = 5\text{ V}$, $I_C = 1\text{ A}$	60		200	
	h_{FE3}	$V_{CE} = 5\text{ V}$, $I_C = 4\text{ A}$	20			
Collector-emitter saturation voltage	$V_{CE(\text{sat})}$	$I_C = 4\text{ A}$, $I_B = 0.4\text{ A}$			2.0	V
Transition frequency	f_T	$V_{CE} = 5\text{ V}$, $I_C = 0.5\text{ A}$, $f = 1\text{ MHz}$		20		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = 10\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$		80		pF

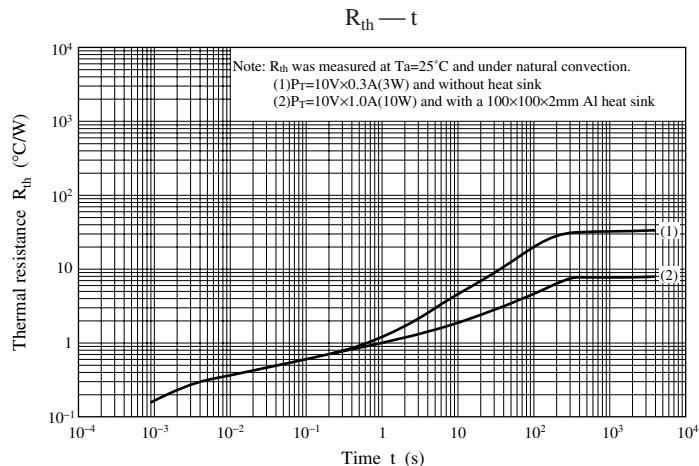
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Rank classification

Rank	Q	S	P
h_{FE2}	60 to 120	80 to 160	100 to 200







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