

2SB1063

Silicon PNP triple diffusion planar type

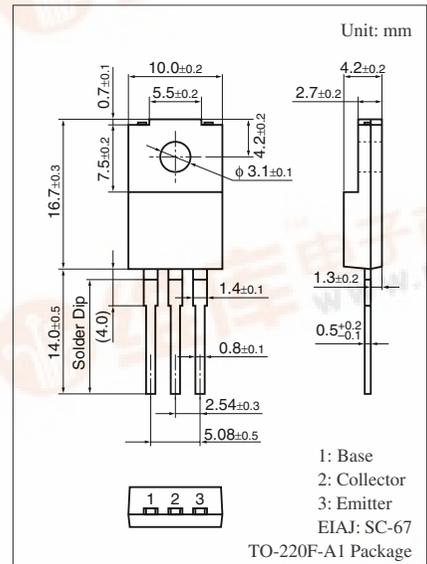
For high power amplification
Complementary to 2SD1499

■ Features

- Extremely satisfactory linearity of the forward current transfer ratio h_{FE}
- Wide safe operation area
- High transition frequency f_T
- Full-pack package which can be installed to the heat sink with one screw

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	-100	V
Collector-emitter voltage (Base open)	V_{CEO}	-100	V
Emitter-base voltage (Collector open)	V_{EBO}	-5	V
Collector current	I_C	-5	A
Peak collector current	I_{CP}	-8	A
Collector power dissipation	P_C	40	W
$T_a = 25^\circ C$		2.0	
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$



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

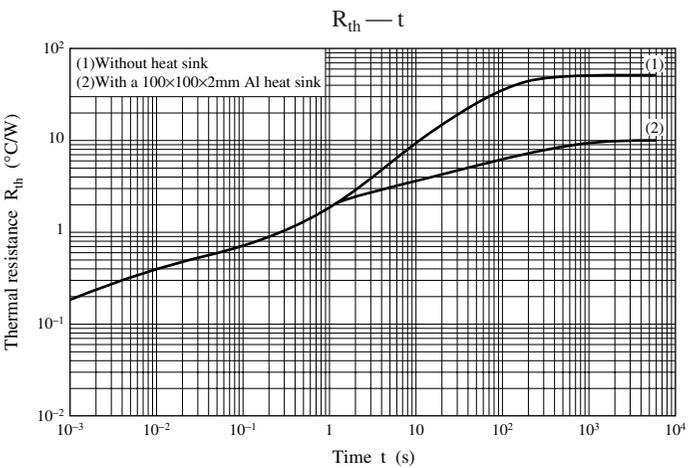
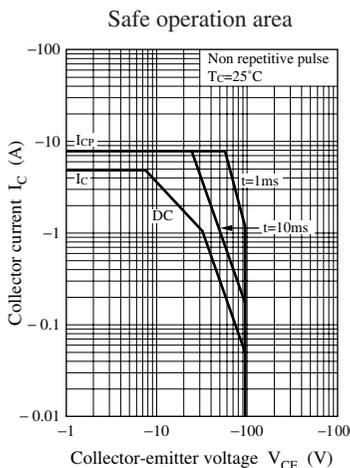
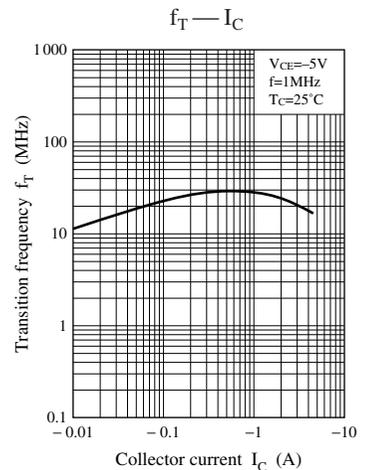
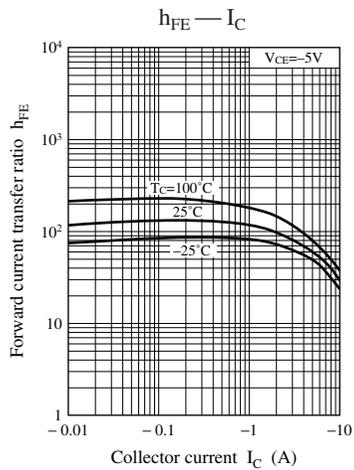
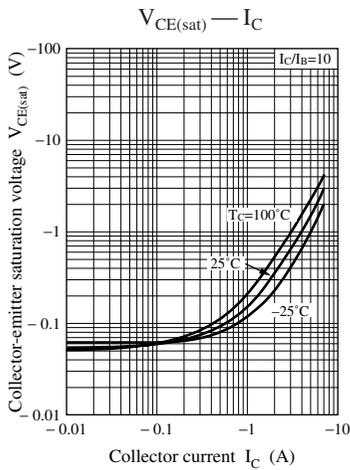
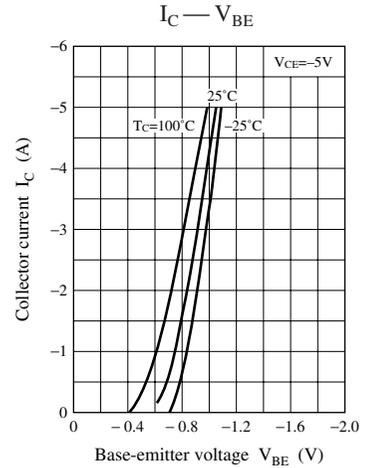
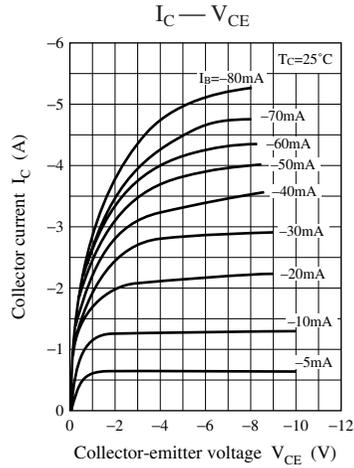
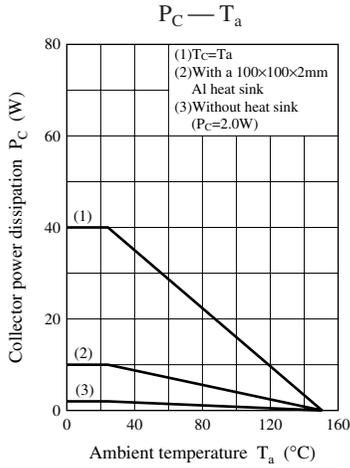
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Base-emitter voltage	V_{BE}	$V_{CE} = -5 V, I_C = -3 A$			-1.8	V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -100 V, I_E = 0$			-50	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = -3 V, I_C = 0$			-50	μA
Forward current transfer ratio	h_{FE1}	$V_{CE} = -5 V, I_C = -20 mA$	20			—
	h_{FE2}^*	$V_{CE} = -5 V, I_C = -1 A$	40	200		
	h_{FE3}	$V_{CE} = -5 V, I_C = -3 A$	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -3 A, I_B = -0.3 A$			-2	V
Transition frequency	f_T	$V_{CE} = -5 V, I_C = -0.5 A, f = 1 MHz$		20		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10 V, I_E = 0, f = 1 MHz$		170		pF

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

2. *: Rank classification

Rank	R	Q	P
h_{FE2}	40 to 80	60 to 120	100 to 200





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