

2SB1593

Silicon PNP epitaxial planar type

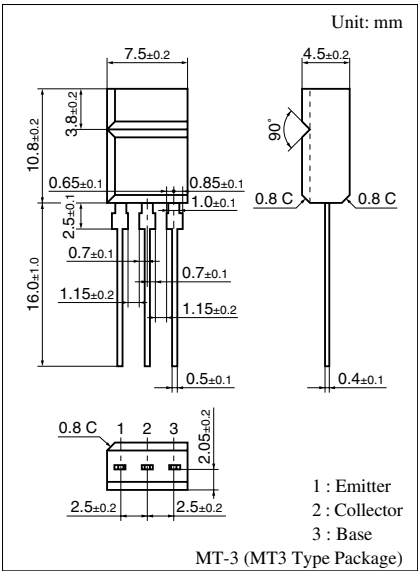
For low-frequency amplification

■ Features

- Low collector to emitter saturation voltage $V_{CE(sat)}$
- Allowing automatic insertion with radial taping

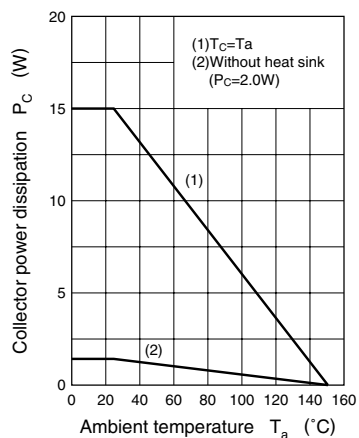
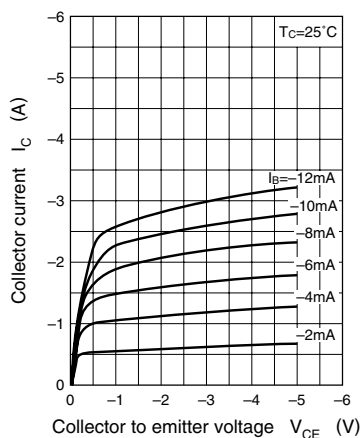
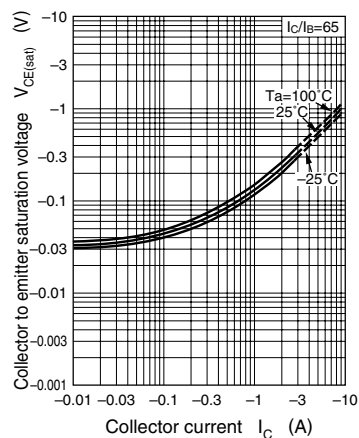
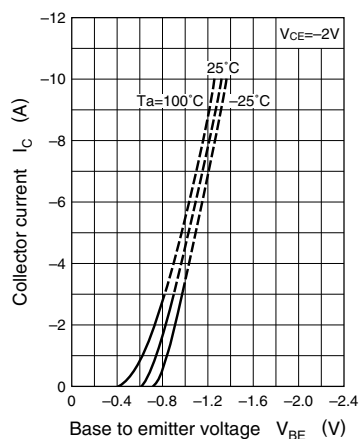
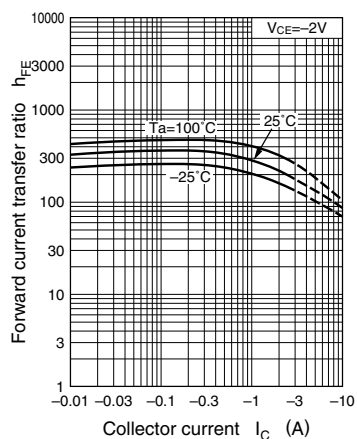
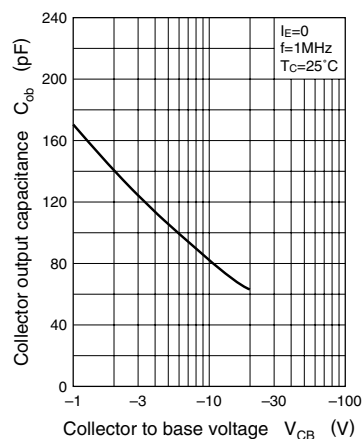
■ Absolute Maximum Ratings $T_C = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-29	V
Collector to emitter voltage	V_{CER}	-29	V
	V_{CEO}	-20	V
Emitter to base voltage	V_{EBO}	-11	V
Peak collector current	I_{CP}	-10	A
Collector current	I_C	-3	A
Collector power dissipation ($T_C = 25^\circ\text{C}$)	P_C	1.5	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	150	$^\circ\text{C}$



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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector to base voltage	V_{CBO}	$I_C = -10\ \mu\text{A}$, $I_E = 0$	-29			V
Collector to emitter voltage	V_{CER}	$I_C = -1\ \text{mA}$, $R_{BE} = 10\ \text{k}\Omega$	-29			V
	V_{CEO}	$I_C = -1\ \text{mA}$, $I_B = 0$	-20			V
Emitter to base voltage	V_{EBO}	$I_E = -10\ \mu\text{A}$, $I_C = 0$	-11			V
Forward current transfer ratio	h_{FE}	$V_{CE} = -2\ \text{V}$, $I_C = -2.6\ \text{A}$	100		450	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2.6\ \text{A}$, $I_B = -40\ \text{mA}$		-0.3	-0.5	V
Transition frequency	f_T	$V_{CB} = -10\ \text{V}$, $I_E = 50\ \text{mA}$, $f = 200\ \text{MHz}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$		110	150	pF

$P_C - T_a$  $I_C - V_{CE}$  $V_{CE(sat)} - I_C$  $I_C - V_{BE}$  $h_{FE} - I_C$  $C_{ob} - V_{CB}$ 

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