

2SB976

Silicon PNP epitaxial planer type

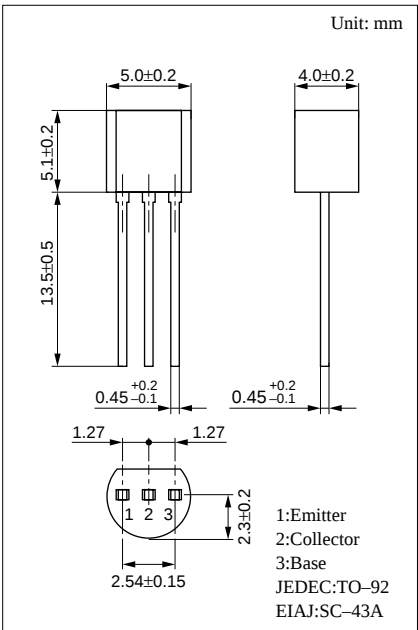
For low-frequency output amplification
 For DC-DC converter
 For stroboscope

Features

- Low collector to emitter saturation voltage $V_{CE(sat)}$.
- Large collector current I_C .

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-27	V
Collector to emitter voltage	V_{CEO}	-18	V
Emitter to base voltage	V_{EBO}	-7	V
Peak collector current	I_{CP}	-8	A
Collector current	I_C	-5	A
Collector power dissipation	P_C	0.75	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C



Electrical Characteristics (Ta=25°C)

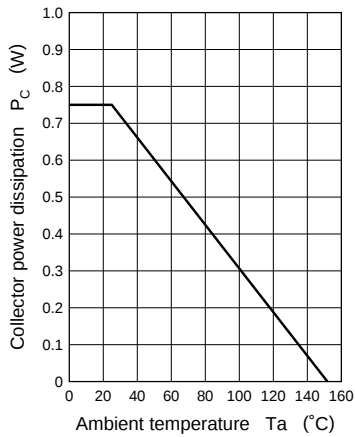
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -10V, I_E = 0$			-100	nA
Emitter cutoff current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-1	μA
Collector to emitter voltage	V_{CEO}	$I_C = -1mA, I_B = 0$	-18			V
Emitter to base voltage	V_{EBO}	$I_E = -10μA, I_C = 0$	-7			V
Forward current transfer ratio	h_{FE}^{*1}	$V_{CE} = -2V, I_C = -2A^{*2}$	125		625	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -3A, I_B = -0.1A^{*2}$		-0.4	-1	V
Transition frequency	f_T	$V_{CB} = -6V, I_E = 50mA, f = 200MHz$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -20V, I_E = 0, f = 1MHz$		60		pF

^{*2} Pulse measurement

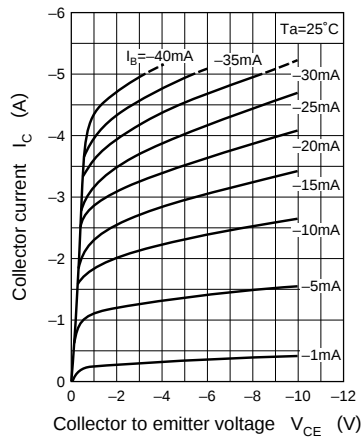
^{*1} h_{FE} Rank classification

Rank	Q	R
h_{FE}	125 ~ 205	180 ~ 625

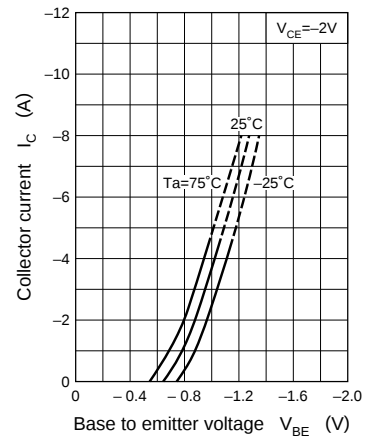
$P_C - T_a$



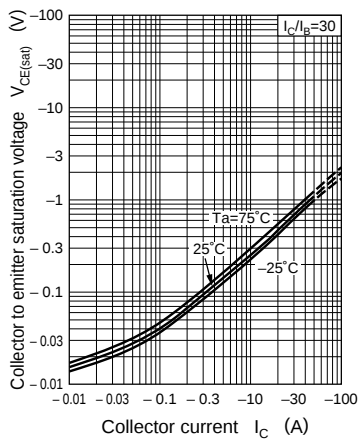
$I_C - V_{CE}$



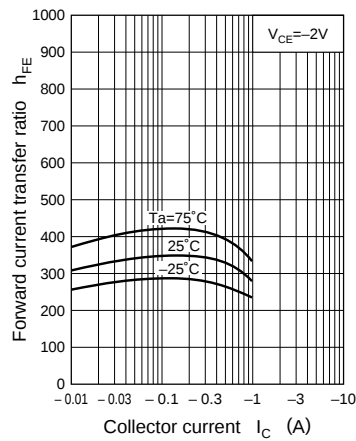
$I_C - V_{BE}$



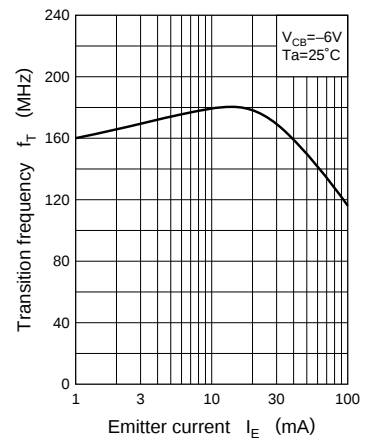
$V_{CE(\text{sat})} - I_C$



$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$

