2SB0970 (2SB970)

Silicon PNP epitaxial planer type

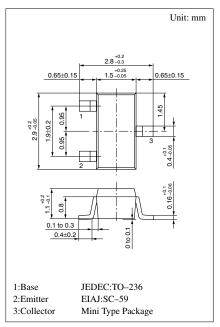
For low-voltage output amplification

Features

- ullet Low collector to emitter saturation voltage $V_{\text{CE(sat)}}$.
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-15	V
Collector to emitter voltage	V_{CEO}	-10	V
Emitter to base voltage	V_{EBO}	-7	V
Peak collector current	I_{CP}	-1	A
Collector current	I_{C}	- 0.5	A
Collector power dissipation	P_{C}	200	mW
Junction temperature	T _j	150	°C
Storage temperature	T_{stg}	−55 ~ +150	°C



Marking symbol: 1R

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
Collector to base voltage	V _{CBO}	$I_{\rm C} = -10\mu A, I_{\rm E} = 0$	-15			V
Collector to emitter voltage	V _{CEO}	$I_{C} = -1 \text{mA}, I_{B} = 0$	-10			V
Emitter to base voltage	V _{EBO}	$I_{\rm E} = -10\mu A, I_{\rm C} = 0$	-7			V
Forward current transfer ratio	h _{FE1} *1	$V_{CE} = -2V, I_C = -0.5A^{*2}$	130		350	
	h _{FE2}	$V_{CE} = -2V, I_C = -1A^{*2}$	60			
Collector to emitter saturation voltage	V _{CE(sat)}	$I_C = -0.4A, I_B = -8mA$		- 0.16	- 0.3	V
Base to emitter saturation voltage	V _{BE(sat)}	$I_C = -0.4A, I_B = -8mA$		- 0.8	-1.2	V
Transition frequency	f_T	$V_{CB} = -10V$, $I_E = 50mA$, $f = 200MHz$		130		MHz
Collector output capacitance	C _{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		22		pF

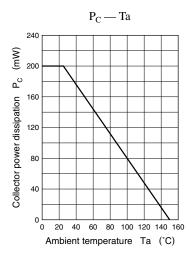
^{*2} Pulse measurement

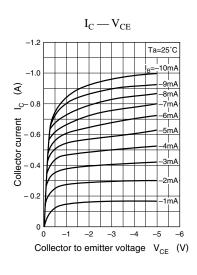
^{*1}hFE1 Rank classification

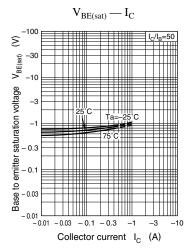
Rank	R	S	
h _{FE1}	130 ~ 220	180 ~ 350	
Marking Symbol	1RR	1RS	

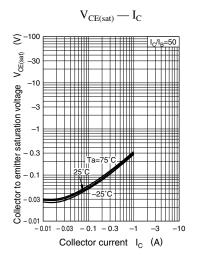
Note.) The Part number in the Parenthesis shows conventional part number.

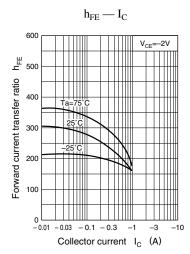
Transistor 2SB0970

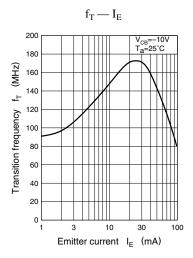


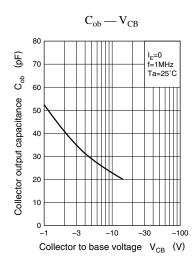












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