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## Silicon NPN epitaxial planer type

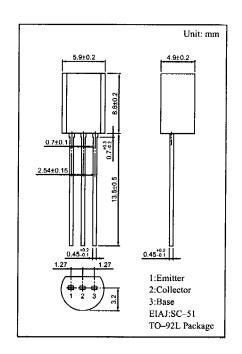
For low-frequency driver amplification Complementary to 2SA777

## ■ Features

- High collector to emitter voltage V<sub>CEO</sub>.
- Optimum for the driver stage of a low-frequency and 25 to 30W output amplifier.

## Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V <sub>CBO</sub>	80	V
Collector to emitter voltage	$V_{CEO}$	80	v
Emitter to base voltage	$V_{EBO}$	5	V
Peak collector current	I <sub>CP</sub>	1	Α
Collector current	I <sub>C</sub>	0.5	A
Collector power dissipation	P <sub>C</sub>	1	w
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	<b>−55 ~ +150</b>	°C



## Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I <sub>CBO</sub>	$V_{CB} = 20V, I_E = 0$			0.1	μА
Collector to base voltage	V <sub>CBO</sub>	$I_{\rm C} = 10 \mu A, I_{\rm E} = 0$	80			V
Collector to emitter voltage	V <sub>CEO</sub>	$I_{\rm C} = 100 \mu A, I_{\rm B} = 0$	80			V
Emitter to base voltage	V <sub>EBO</sub>	$I_{\rm E} = 10 \mu A, I_{\rm C} = 0$	5			V
Forward current transfer ratio	h <sub>FE1</sub> *1	$V_{CE} = 10V, I_C = 150mA^{*2}$	130		330	
	h <sub>FE2</sub>	$V_{CE} = 5V, I_{C} = 500 \text{mA}^{*2}$	50	100		
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	$I_C = 300 \text{mA}, I_B = 30 \text{mA}^{*2}$		0.2	0.4	V
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	$I_C = 300 \text{mA}, I_B = 30 \text{mA}^{*2}$		0.85	1.2	V
Transition frequency	$f_T$	$V_{CB} = 10V$ , $I_E = -50mA$ , $f = 100MHz$		120		MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB} = 10V, I_E = 0, f = 1MHz$		11	20	pF

\*2 Pulse measurement

<sup>\*1</sup>h<sub>FE1</sub> Rank classification

Rank	R	S
h <sub>FE1</sub>	130 ~ 220	185 ~ 330

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