# 2SA2077

### Silicon PNP epitaxial planar type

For general amplification Complementary to 2SC5845

#### Features

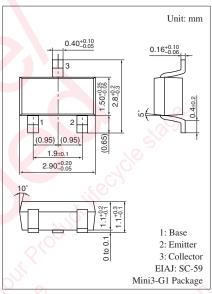
• High forward current transfer ratio hFE

Developerates

• Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

# Absolute Maximum Ratings $T_a = 25^{\circ}C$

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	-45	V	
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	-45	v	
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	-7	V	
Collector current	I <sub>C</sub>	-100	mA	
Peak collector current	I <sub>CP</sub>	-200	mA	
Collector power dissipation	P <sub>C</sub>	200	mW	
Junction temperature	Tj	150	°CO	
Storage temperature	T <sub>stg</sub>	-55 to +150	°C	



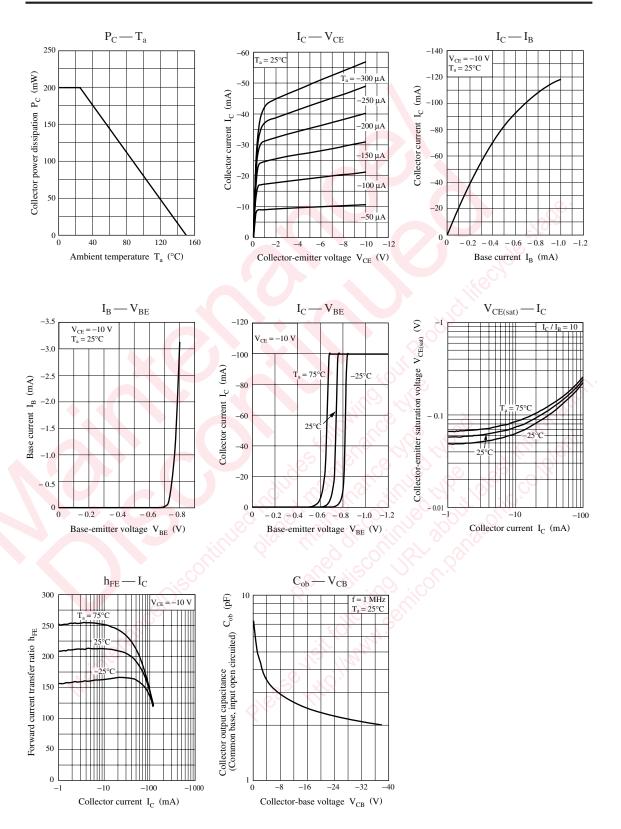
#### Marking Symbol: 7L

#### Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_{\rm C} = -10 \ \mu A, \ I_{\rm E} = 0$	-45	S		V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{\rm C} = -2 \text{ mA}, I_{\rm B} = 0$	-45			V
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	$I_{\rm E} = -10 \ \mu A, I_{\rm C} = 0$	-7			V
Collector-base cutoff current (Emitter open)	I <sub>CBO</sub>	$V_{CB} = -20 \text{ V}, I_E = 0$			- 0.1	μΑ
Collector-emitter cutoff current (Base open)	I <sub>CEO</sub>	$V_{CE} = -10 \text{ V}, I_B = 0$			-100	μΑ
Forward current transfer ratio	h <sub>FE</sub>	$V_{CE} = -10 \text{ V}, I_C = -2 \text{ mA}$	160		460	_
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{\rm C} = -100 \text{ mA}, I_{\rm B} = -10 \text{ mA}$		- 0.2	- 0.5	V
Transition frequency	f <sub>T</sub>	$V_{CB} = -10$ V, $I_E = 1$ mA, $f = 200$ MHz		80		MHz
Collector output capacitance (Common base, input open circuited)	C <sub>ob</sub>	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		2.2		pF

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

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