# 2SA2079

Silicon PNP epitaxial planar type

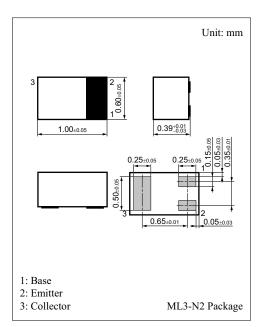
For general amplification Complementary to 2SC5848

#### Features

- $\bullet$  High forward current transfer ratio  $h_{FE}$
- Suitable for high-density mounting and douwsizing of the equipment for ultraminiature leadless package
  - Package: 0.6 mm  $\times$  1.0 mm (hight 0.39 mm)

#### 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>	100	mW	
Junction temperature	Tj	125	°C	
Storage temperature	T <sub>stg</sub>	-55 to +125	°C	



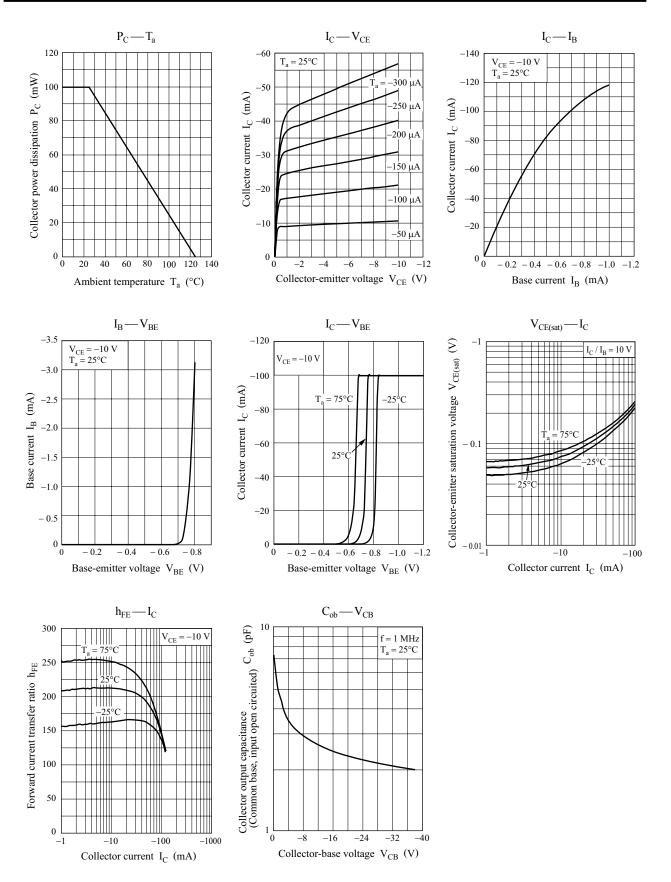
Marking Symbol : 3D

#### 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>	$I_{\rm C} = -10 \mu {\rm A},  I_{\rm E} = 0$	-45			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{\rm C} = -2  {\rm mA}, I_{\rm B} = 0$	-45			V
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	$I_{\rm E} = -10 \mu {\rm A},  I_{\rm C} = 0$	-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 cut-off 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>	$V_{CE} = -10 \text{ V}, I_C = -2 \text{ mA}$	180		390	
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	$\mathbf{f}_{\mathrm{T}}$	$V_{CB} = -10 \text{ V}, I_E = 1 \text{ mA}, f = 200 \text{ MHz}$		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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