



SANYO Semiconductors

DATA SHEET

**2SC4071** — NPN Epitaxial Planar Type Silicon Transistor  
**Differential Amp, Very High-Speed Switching Applications**

**Features**

The 2SC4071 is formed with two chips, being equivalent to the 2SC3770, placed in one package.

Absolute Maximum Ratings at Ta=25°C		unit
Collector to Base Voltage	V <sub>CB0</sub>	30 V
Collector to Emitter Voltage	V <sub>CEO</sub>	20 V
Emitter to Base Voltage	V <sub>EBO</sub>	3 V
Collector Current	I <sub>C</sub>	30 mA
Base Current	I <sub>B</sub>	10 mA
Collector Dissipation	P <sub>C</sub> 1 unit	250 mW
Junction Temperature	T <sub>j</sub>	150 °C
Storage Temperature	T <sub>stg</sub>	-55 to +150 °C

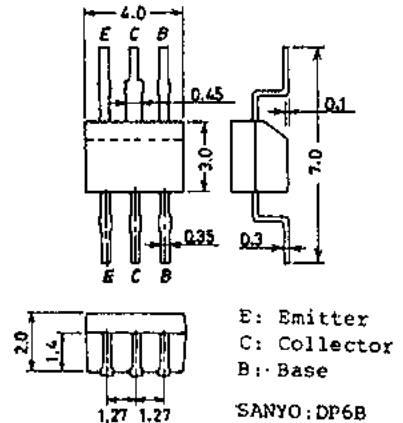
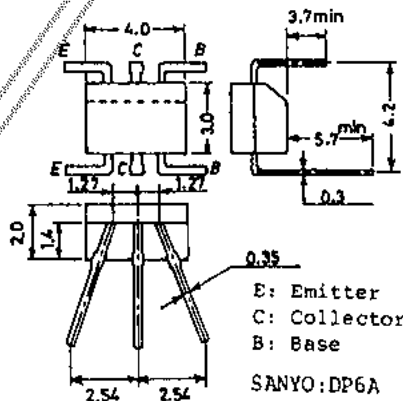
Electrical Characteristics at Ta=25°C		min	typ	max	unit
Collector Cutoff Current	I <sub>CB0</sub> V <sub>CB</sub> =20V, I <sub>E</sub> =0			1.0	µA
Emitter Cutoff Current	I <sub>EBO</sub> V <sub>EB</sub> =2V, I <sub>C</sub> =0			10	µA
DC Current Gain	h <sub>FE</sub> V <sub>CE</sub> =10V, I <sub>C</sub> =3mA	40		200	
DC Current Gain Ratio	h <sub>FE1</sub> /h <sub>FE2</sub> V <sub>CE</sub> =10V, I <sub>C</sub> =3mA, *1	0.8		1.0	
Base to Emitter Voltage Difference	ΔV <sub>BE</sub> V <sub>CE</sub> =10V, I <sub>C</sub> =3mA			10	mV
Gain-Bandwidth Product	f <sub>T</sub> V <sub>CE</sub> =10V, I <sub>C</sub> =3mA, *2	0.6	1.2		GHz
Collector Capacitance	C <sub>ob</sub> V <sub>CB</sub> =10V, f=1MHz, *2		0.7		pF

\*1: The smaller h<sub>FE</sub> is taken as h<sub>FE1</sub>.  
 \*2: Chips in the same lot are evaluated as the 2SC3770.

Case Outline 2029A (unit:mm)

Case Outline 2030A (unit:mm)

The application circuit diagrams and circuit constants herein are included as an example and providing guarantee for designing equipment to be mass-produced. The information herein is believed to be accurate and reliable. However, no responsibility is assumed by SANYO for its use, nor for any infringements of patents or other rights of third parties which may result from its use.



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