



SANYO Semiconductors

# DATA SHEET

PNP/NPN Epitaxial Planar Silicon Transistors

## 2SA1574/2SC4070 — Switching Applications (with Bias Resistance)

### Applications

- Switching circuit, inverter circuit, interface circuit, driver circuit

### Features

- On-chip bias resistance: R1=0, R2=22kΩ
- Small-sized package: SPA

( ): PNP

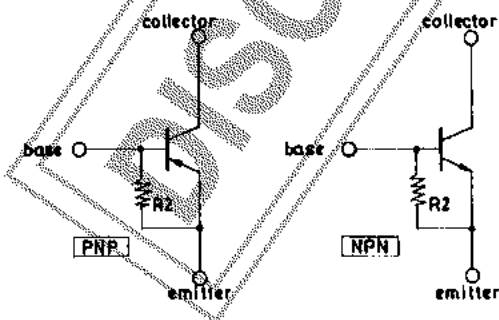
### Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V <sub>CB0</sub>	(-)50	V
Collector to Emitter Voltage	V <sub>CE0</sub>	(-)50	V
Emitter to Base Voltage	V <sub>EBO</sub>	(-)5	V
Collector Current	I <sub>C</sub>	(-)100	mA
Collector Current(Pulse)	I <sub>CP</sub>	(-)200	mA
Collector Dissipation	P <sub>C</sub>	300	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

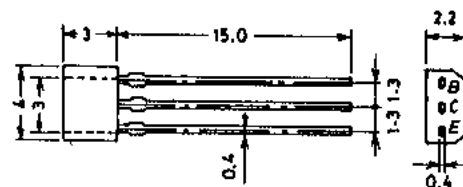
### Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> =(-)40V, I <sub>E</sub> =0			(-)0.1	μA
	I <sub>CE0</sub>	V <sub>CE</sub> =(-)40V, I <sub>B</sub> =0			(-)0.5	μA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =(-)5V, I <sub>C</sub> =0	(-)174	(-)227	(-)324	μA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =(-)5V, I <sub>C</sub> =(-)10mA	70			
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =(-)10V, I <sub>C</sub> =(-)5mA		250 (200)		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =(-)10V, f=1MHz		3.7 (5.5)		pF
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =(-)10mA, I <sub>B</sub> =(-)0.5mA	(-)0.1	(-)0.3		V
C-B Breakdown Voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =(-)10μA, I <sub>E</sub> =0	(-)50			V
C-E Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =(-)100μA, R <sub>BE</sub> =∞	(-)50			V
Resistance	R2		15	22	29	kΩ

### Electrical Connection



### Case Outline 2033 (unit:mm)



B: Base  
C: Collector  
E: Emitter

SANYO: SPA

Specifications and information herein are subject to change without notice.

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