

SANYO

No.2807

2SA1654/2SC4361

PNP/NPN Epitaxial Planar Silicon Transistors

Switching Applications
(with Bias Resistance)**Applications**

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

Features

- On-chip bias resistance ($R1 = 4.7k\Omega$, $R2 = 10k\Omega$)

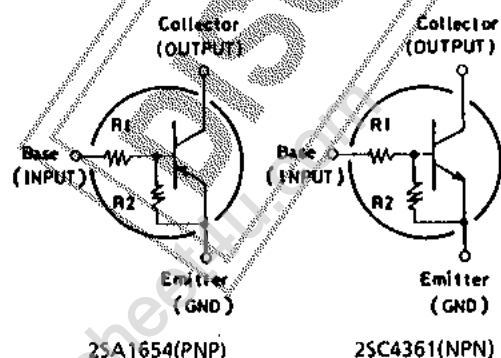
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Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

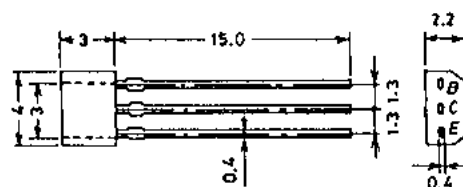
			unit
Collector to Base Voltage	V_{CB0}	(-) 50	V
Collector to Emitter Voltage	V_{CE0}	(-) 50	V
Emitter to Base Voltage	V_{EB0}	(-) 6	V
Collector Current	I_C	(-) 100	mA
Collector Current (Pulse)	I_{CP}	(-) 200	mA
Collector Dissipation	P_C	300	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to $+150$	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)40\text{V}, I_E = 0$			(-) 0.1	μA
Collector Cutoff Current	I_{CEO}	$V_{CE} = (-)40\text{V}, I_B = 0$			(-) 0.5	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)5\text{V}, I_C = 0$	(-) 262	(-) 340	(-) 485	μA
DC Current Gain	h_{FE}	$V_{CE} = (-)5\text{V}, I_C = (-)10\text{mA}$	50			
Gain-Bandwidth Product	f_T	$V_{CE} = (-)10\text{V}, I_C = (-)5\text{mA}$		250		MHz
				(200)		MHz
Output Capacitance	c_{ob}	$V_{CB} = (-)10\text{V}, f = 1\text{MHz}$		3.7		pF
				(5.5)		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)10\text{mA}, I_B = (-)0.5\text{mA}$		(-) 0.1	(-) 0.3	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu\text{A}, I_E = 0$	(-) 50			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)100\mu\text{A}, R_{BE} = \infty$	(-) 50			V
Input OFF-State Voltage	$V_{(off)}$	$V_{CE} = (-)5\text{V}, I_C = (-)100\mu\text{A}$	(-) 0.7	(-) 0.85	(-) 0.95	V
Input ON-State Voltage	$V_{(on)}$	$V_{CE} = (-)0.2\text{V}, I_C = (-)10\text{mA}$	(-) 0.95	(-) 1.3	(-) 2.0	V
Input Resistance	$R1$		3.3	4.7	6.1	k Ω
Resistance Ratio	$R1/R2$			0.47		

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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