Ordering number : EN 1684A

SANYO Semiconductors

DATA SHEET

PNP/NPN Epitaxial Planar Silicon Transistors

2SA1422/2SC3655 — Switching Applications (with Bias Resistor)

Use

. Switching circuit, inverter circuit, interface circuit, driver circuit

Features

. With bias resistor (R1=46kΩ ,R2=23kΩ).

( ): 2SA1422

Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V_{CBO}	(-)50	V
Collector to Emitter Voltage	V_{CEO}	(-)50	V
Emitter to Base Voltage	V_{EBO}	(-)10	V
Collector Current	I_C	(-)100	mA
Collector Current(Pulse)	I_{CP}	(-)200	mA
Collector Dissipation	P_C	400	mW
Junction Temperature	T_j	150	°C
Storage Temperature	Tstg	-55 to +150	°C

Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=(-)40V, I_E=0			(-)0.1	μA
Collector Cutoff Current	I_{CEO}	V_{CE}=(-)40V, I_B=0			(-)0.5	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(-)5V, I_C=0	(-)40	(-)72	(-)100	μA
DC Current Gain	h_{FE}	V_{CE}=(-)5V, I_C=(-)5mA	50			
Gain-Bandwidth Product	f_T	V_{CE}=(-)10V, I_C=(-)5mA		250 (200)		MHz
Output Capacitance	C_{ob}	V_{CB}=(-)10V, f=1MHz		3.7 (5.5)		pF
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=(-)5mA, I_B=(-)0.25mA		(-)0.1	(-)0.3	V
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=(-)10μA, I_E=0	(-)50			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=(-)100μA, R_{BE}=∞	(-)50			V

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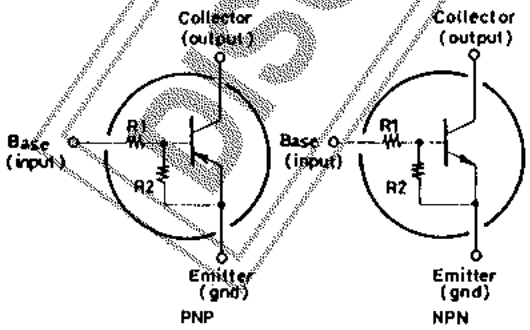
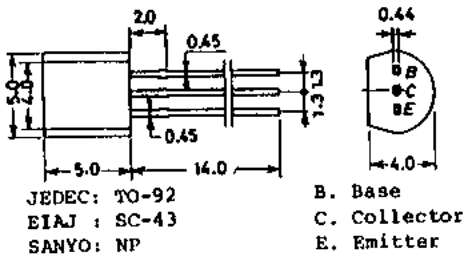
Electrical Connection



Case Outline 2003A
(unit:mm)



Specifications and information herein are subject to change without notice.

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			min	typ	max	unit
Input OFF-State Voltage	$V_{I(off)}$	V_{CE}=(-)5V, I_C=(-)100μA	(-)1.2	(-)1.6	(-)2.3	V
Input ON-State Voltage	$V_{I(on)}$	V_{CE}=(-)0.2V, I_C=(-)5mA	(-)1.5	(-)3.1	(-)6.0	V
Input Resistance	R1		32	46	60	kΩ
Resistance Ratio	R1/R2		1.8	2.0	2.2	-

Sample Application Circuit