

SANYO

No.2152A

2SA1528/2SC3922

PNP/NPN Epitaxial Planar Silicon Transistors

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

- Switching circuits, inverter circuits, interface circuits, driver circuits

Features

- On-chip bias resistance: $R_1=2.2k\Omega$, $R_2=10k\Omega$
- Large current capacity: $I_C=500mA$

(): 2SA1528

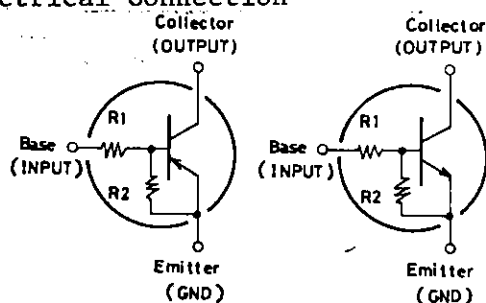
Absolute Maximum Ratings at $T_a=25^\circ C$

			unit
Collector to Base Voltage	V_{CBO}	(-)50	V
Collector to Emitter Voltage	V_{CEO}	(-)50	V
Emitter to Base Voltage	V_{EBO}	(-)6	V
Collector Current	I_C	(-)500	mA
Collector Current (Pulse)	I_{CP}	(-)800	mA
Collector Dissipation	P_C	600	mW
Junction Temperature	T_C	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

Electrical Characteristics at $T_a=25^\circ C$

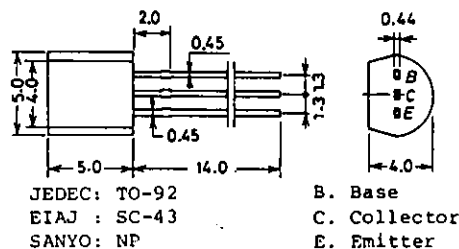
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)40V, I_E=0$			(-)0.1	μA
	I_{CEO}	$V_{CE}=(-)40V, I_B=0$			(-)0.5	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)5V, I_C=0$	(-)315	(-)410	(-)590	μA
DC Current Gain	h_{FE}	$V_{CE}=(-)5V, I_C=(-)10mA$	50			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)10V, I_C=(-)5mA$		250		MHz
				(200)		MHz
Output Capacitance	c_{ob}	$V_{CB}=(-)10V, f=1MHz$		3.7		pF
				(5.5)		pF
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)50mA, I_B=(-)2.5mA$		(-)0.1	(-)0.3	V
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_B=(-)10\mu A, I_E=0$	(-)50			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)100\mu A, R_{BE}=\infty$	(-)50			V

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Electrical Connection

2SA1528:PNP

2SC3922:NPN

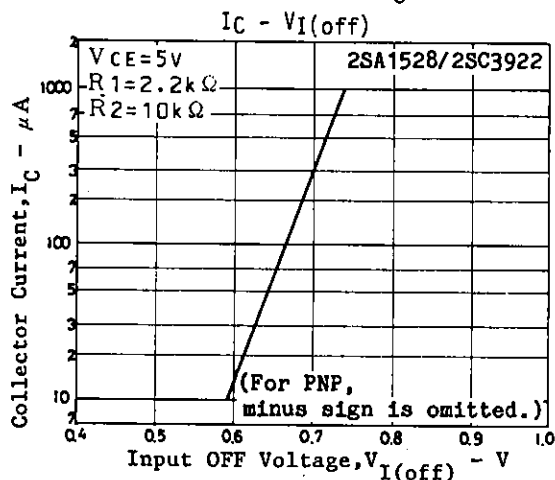
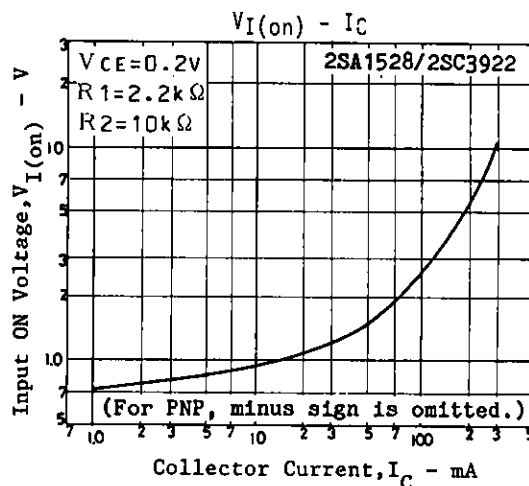
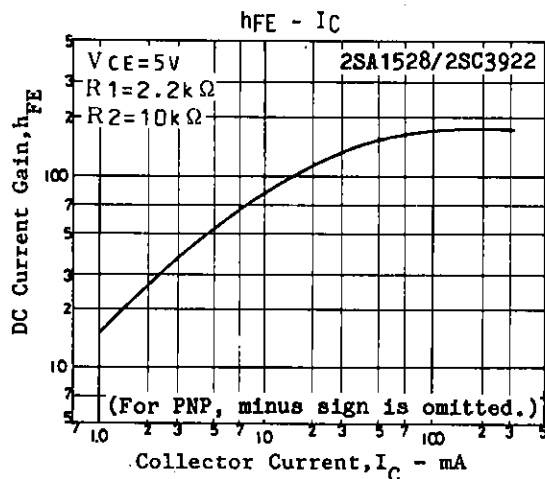
Package Dimensions 2003A
(unit: mm)

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3307KI/8206AT, TS No.2152-1/2

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			min	typ	max	unit
Input OFF-State Voltage	$V_{I(off)}$	$V_{CE}=(-)5V,$ $I_{C\bar{E}}=(-)100\mu A$	$(-)0.5$	$(-)0.67$	$(-)0.9$	V
Input ON-State Voltage	$V_{I(on)}$	$V_{CE}=(-)0.2V,$ $I_{C\bar{E}}=(-)50mA$	$(-)0.7$	$(-)1.6$	$(-)3.0$	V
Input Resistance	R1		1.5	2.2	2.9	k Ω
Resistance Ratio	R1/R2		0.198	0.22	0.242	



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