

<b>SANYO</b>	No.2166	<b>2SA1521/2SC3915</b>
		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=2.2kΩ, R2=2.2kΩ)
- Small-sized package (CP)
- Large current capacity (I<sub>C</sub>=500mA)

( ): 2SA1521

**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>	(-)6	V
Collector Current	I <sub>C</sub>	(-)500	mA
Collector Current(Pulse)	I <sub>CP</sub>	(-)800	mA
Collector Dissipation	P <sub>C</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

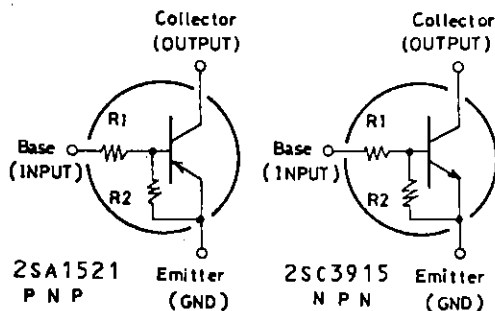
**Electrical Characteristics at Ta=25°C**

			min	typ	max	unit
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> =(-)40V, I <sub>E</sub> =0			(-)0.1	μA
Collector Cutoff Current	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	(-)860	(-)1140	(-)1670	μA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =(-)5V, I <sub>C</sub> =(-)50mA	50			
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =(-)10V, I <sub>C</sub> =(-)5mA		250		MHz
				(200)		MHz
Output Capacitance	c <sub>ob</sub>	V <sub>CB</sub> =(-)10V, f=1MHz		3.7		pF
				(5.5)		pF
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =(-)50mA, I <sub>B</sub> =(-)2.5mA		(-)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

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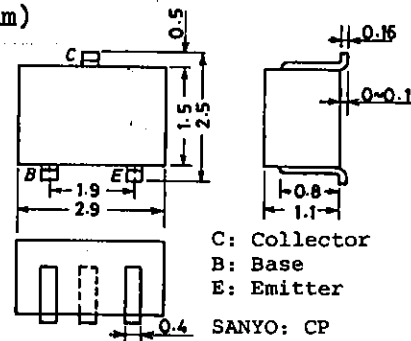
Marking 2SA1521:0L, 2SC3915:WY

**Electrical Connection**



**Package Dimensions 2018A**

(unit: mm)

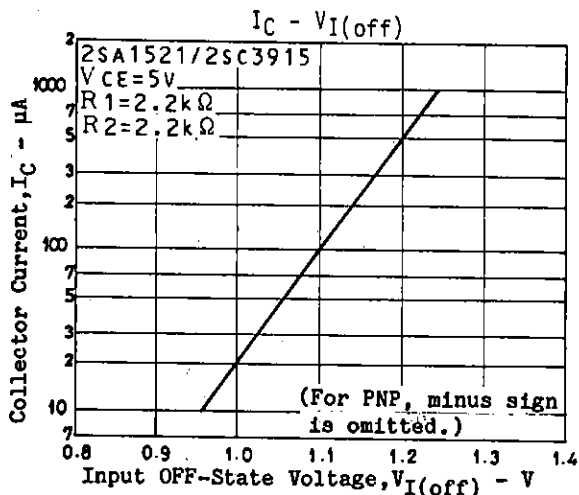
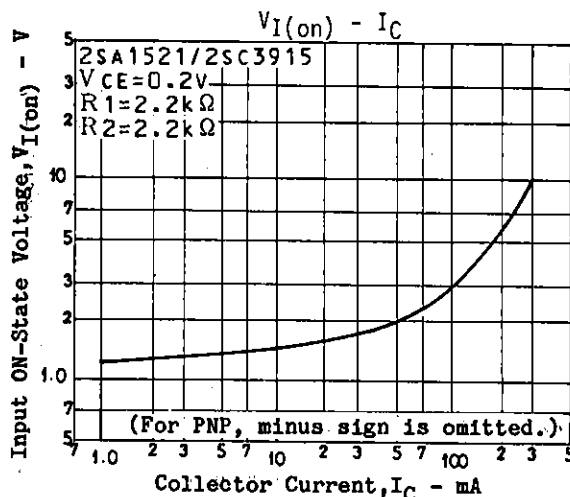
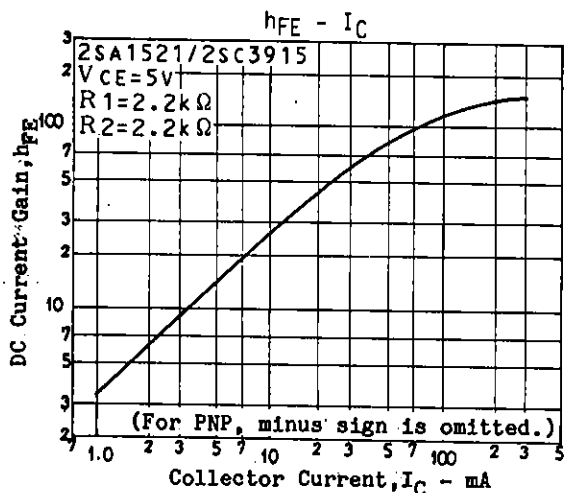


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		min	typ	max	unit	
Input OFF-State Voltage	$V_{I(off)}$	$V_{CE}=(-)5V, I_C=(-)100\mu A$	(-)0.8	(-)1.1	(-)1.5	V
Input ON-State Voltage	$V_{I(on)}$	$V_{CE}=(-)0.2V, I_C(-)50mA$	(-)1.0	(-)1.9	(-)4.0	V
Input Resistance	$R_1$		1.5	2.2	(-)2.9	k $\Omega$
Resistance Ratio	$R_1/R_2$		0.9	1.0	(-)1.1	



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