

SANYO	No.2166	2SA1521/2SC3915
		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_C=500mA)

(): 2SA1521

Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V _{CB0}	(-)50	V
Collector to Emitter Voltage	V _{CE0}	(-)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	200	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

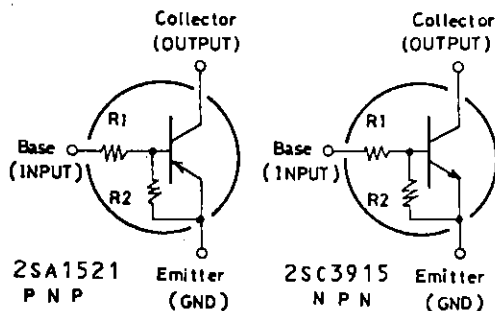
Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} =(-)40V, I _E =0			(-)0.1	μA
Collector Cutoff Current	I _{CE0}	V _{CE} =(-)40V, I _B =0			(-)0.5	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =(-)5V, I _C =0	(-)860	(-)1140	(-)1670	μA
DC Current Gain	h _{FE}	V _{CE} =(-)5V, I _C =(-)50mA	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
C-E Saturation Voltage	V _{CE(sat)}	I _C =(-)50mA, I _B =(-)2.5mA		(-)0.1	(-)0.3	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C =(-)10μA, I _E =0	(-)50			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C =(-)100μA, R _{BE} =∞	(-)50			V

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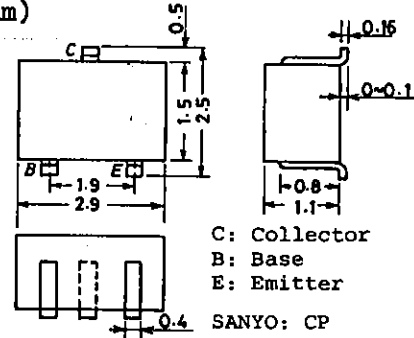
Marking 2SA1521:0L, 2SC3915:WY

Electrical Connection



Package Dimensions 2018A

(unit: mm)

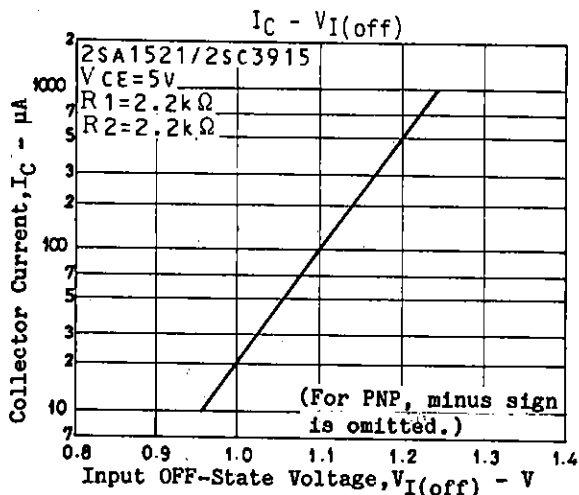
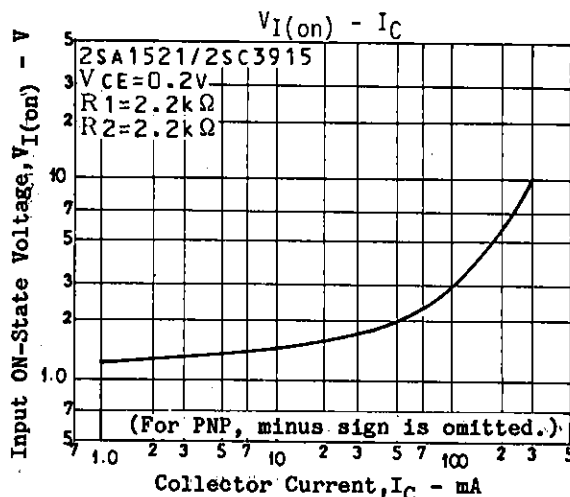
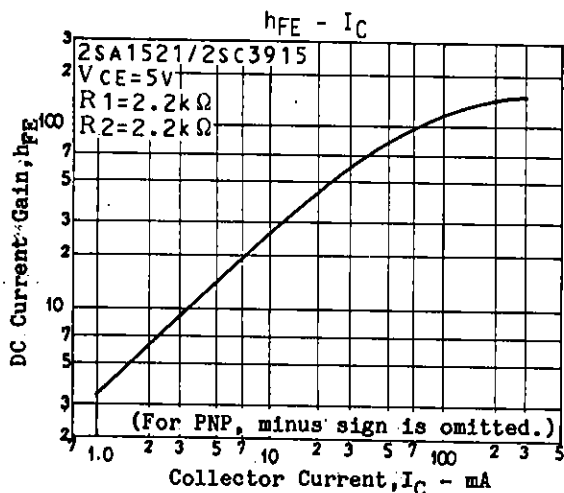


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		min	typ	max	unit	
Input OFF-State Voltage	$V_{I(off)}$	$V_{CE}=(-)5V, I_C=(-)100\mu A$	(-)0.8	(-)1.1	(-)1.5	V
Input ON-State Voltage	$V_{I(on)}$	$V_{CE}=(-)0.2V, I_C(-)50mA$	(-)1.0	(-)1.9	(-)4.0	V
Input Resistance	R_1		1.5	2.2	(-)2.9	k Ω
Resistance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



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