

SANYO	No.2161A	2SA1520/2SC3914
		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 (R1=2.2kΩ, R2=10kΩ)
- Small-sized package (CP)
- Large current capacity (IC=500mA)

(): 2SA1520

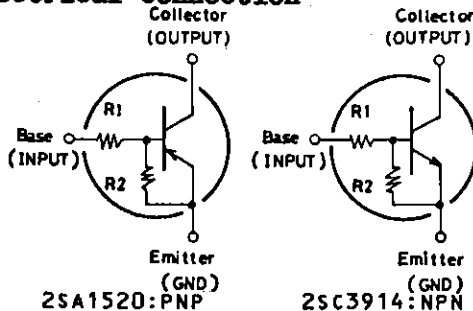
Absolute Maximum Ratings at Ta=25°C

			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
	I _{CE0} 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
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
Input OFF-State Voltage	V _{I(off)} V _{CE} =(-)5V, I _C =(-)100μA	(-)0.5	(-)0.67	(-)0.9	V
Input ON-State Voltage	V _{I(on)} V _{CE} =(-)0.2V, I _C =(-)50mA	(-)0.7	(-)1.6	(-)3.0	V
Input Resistance	R ₁	1.5	2.2	2.9	kΩ
Resistance Ratio	R ₁ /R ₂	0.198	0.22	0.242	

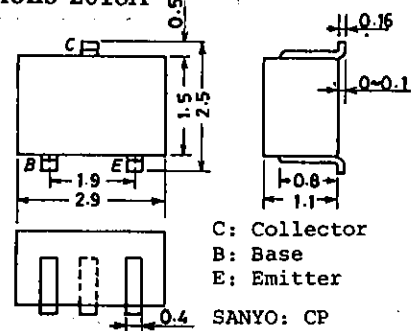
Electrical Connection



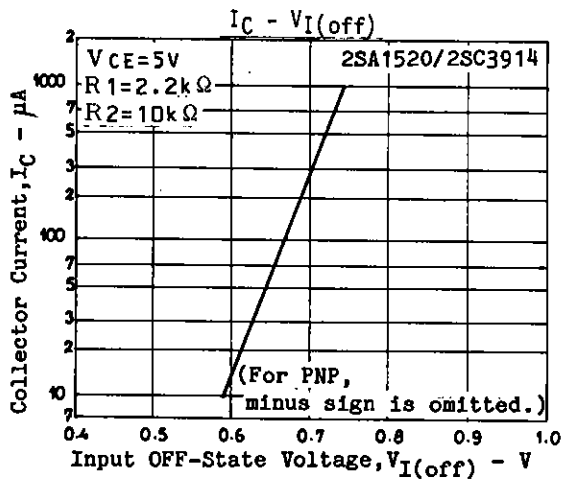
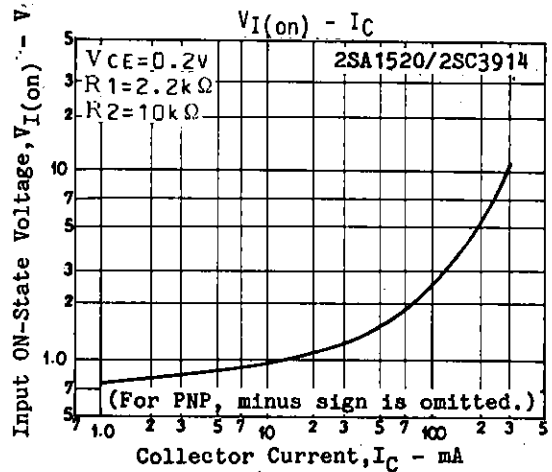
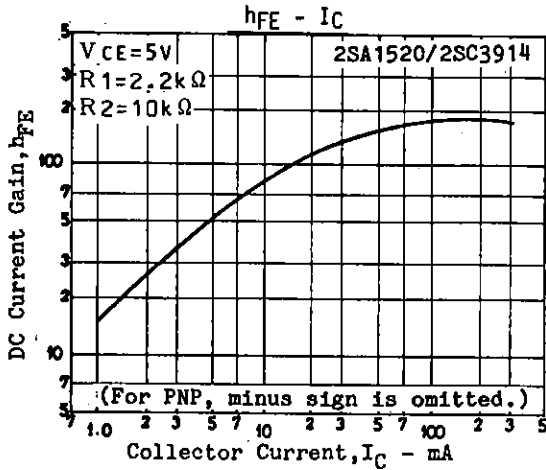
Package Dimensions 2018A

(unit:mm)

Marking
2SA1520: NL
2SC3914: VY



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