

SANYO	No.2160A	<h1 style="margin: 0;">2SA1519/2SC3913</h1> <p style="margin: 0;">PNP/NPN Epitaxial Planar Silicon Transistors</p> <p style="margin: 0;">Switching Applications (with Bias Resistance)</p>
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Applications

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

Features

- On-chip bias resistance: (R1=4.7kΩ, R2=4.7kΩ)
- Small-sized package: CP
- Large current capacity: I_C=500mA

() : 2SA1519

Absolute Maximum Ratings at Ta=25°C

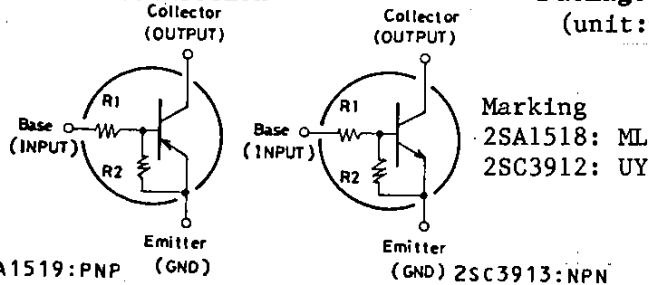
			unit
Collector to Base Voltage	V _{CB0}	(-)50	V
Collector to Emitter Voltage	V _{CEO}	(-)50	V
Emitter to Base Voltage	V _{EBO}	(-)6	V
Collector Current	I _C	(-)500	mA
Collector Current(Pulse)	I _{CP}	(-)800	mA
Collector Dissipation	P _C	200	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-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 _{CEO}	V _{CE} =(-)40V, I _B =0			(-)0.5	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =(-)5V, I _C =0	(-)410	(-)532	(-)760	μA
DC Current Gain	h _{FE}	V _{CE} =(-)5V, I _C =(-)20mA	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 =(-)40mA, I _B =(-)2mA	(-)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

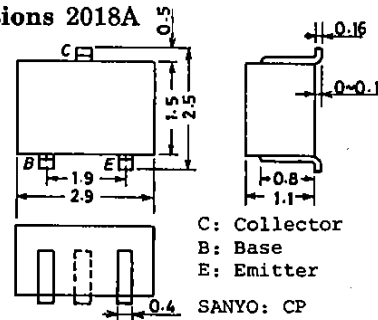
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Electrical Connection



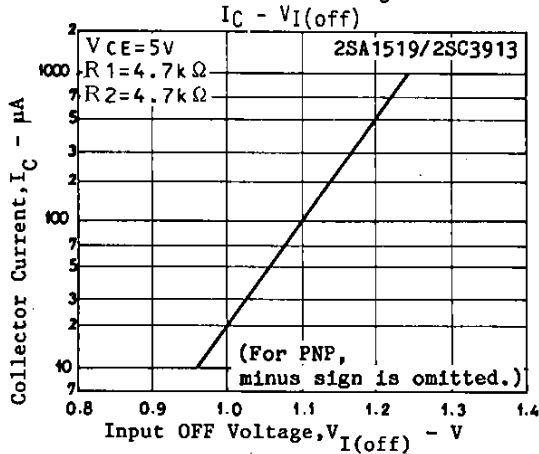
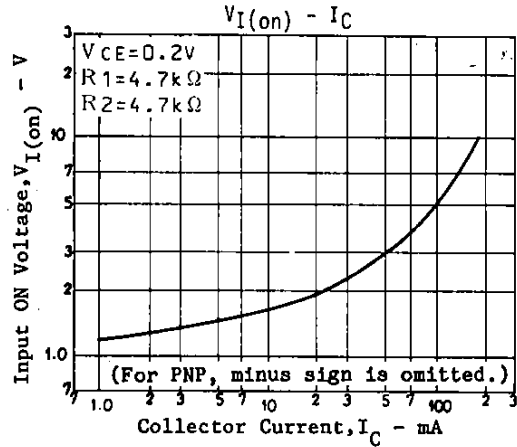
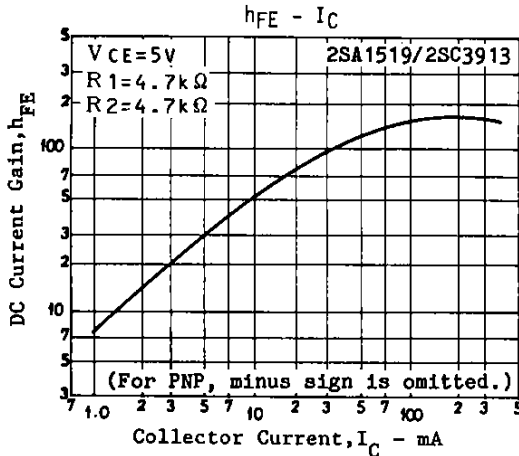
Package Dimensions 2018A

(unit:mm)



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			min	typ	max	unit
Input OFF-State Voltage	$V_{I(off)}$	$V_{CE} = (-)5V,$ $I_{C(off)} = (-)100\mu A$	(-)0.8	(-)1.1	(-)1.5	V
Input ON-State Voltage	$V_{I(on)}$	$V_{CE} = (-)0.2V,$ $I_{C(on)} = (-)20mA$	(-)1.0	(-)1.9	(-)4.0	V
Input Resistance	R1		3.3	4.7	6.1	k Ω
Resistance Ratio	R1/R2		0.9	1.0	1.1	



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