2SC4112

2018A

NPN/PNP Epitaxial Planar Silicon Transistors

2SA1581

Switching Applications (with Bias Resistance)

Applications

. Switching circuit, inverter circuit, interface circuit, driver circuit

Features

. On-chip bias resistance (R1=2.2kohms, R2=∞)
. Small-sized package (CP)

( ): 2SA1581

Absolute Maximum Ratings at Ta=25°C

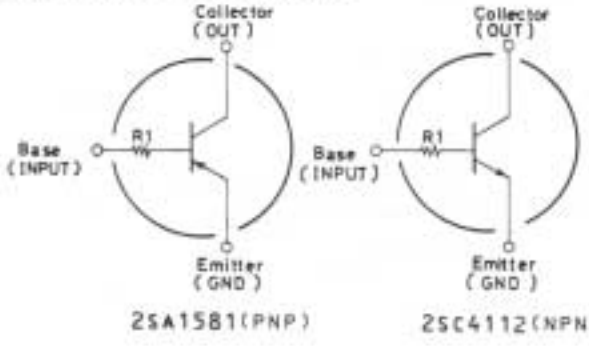
			unit
Collector to Base Voltage	V_{CBO}	(-)50	V
Collector to Emitter Voltage	V_{CEO}	(-)50	V
Emitter to Base Voltage	V_{EBO}	(-)5	V
Collector Current	I_C	(-)100	mA
Peak Collector Current	i_{cp}	(-)200	mA
Collector Dissipation	P_C	200	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55 to +150	°C

Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=(-)40V, I_E=0			(-)0.1	uA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(-)5V, I_C=0			(-)0.1	uA
DC Current Gain	h_{FE}	V_{CE}=(-)5V, I_C=(-)10mA	100			
Gain-Bandwidth Product	f_T	V_{CE}=(-)10V, I_C=(-)5mA		250 (200)		MHz
Output Capacitance	c_{ob}	V_{CB}=(-)10V, f=1MHz		3.5 (5.3)		pF
C-E Saturation Voltage	$V_{CE(sat)}$	I_C=(-)10mA, I_B=(-)0.5mA		(-)0.1	(-)0.3	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	I_C=(-)10uA, I_E=0	(-)50			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_C=(-)100uA, R_{BE}=∞	(-)50			V
Input OFF-State Voltage	$V_{I(off)}$	V_{CE}=(-)5V, I_C=(-)100uA	(-)0.4	(-)0.55	(-)0.8	V
Input ON-State Voltage	$V_{I(on)}$	V_{CE}=(-)0.2V, I_C=(-)10mA	(-)0.6	(-)0.8	(-)1.5	V
Input Resistance	R1		1.5	2.2	2.9	kohm

Marking on device 2SA1581:VL, 2SC4112:DT

Electrical Connection



Case Outline 2018A
(unit:mm)