



No.1290C

2SA1348/2SC3402

PNP/NPN Epitaxial Planar Silicon Transistors

Switching Applications
(with Bias Resistance)

Applications

Switching circuit, inverter, interface circuit, driver

Features

- Built-in bias resistor ($R_1=10k\Omega$, $R_2=10k\Omega$).
- Small-sized package (SPA).

(): 2SA1348

Absolute Maximum Ratings/ $T_a=25^\circ\text{C}$

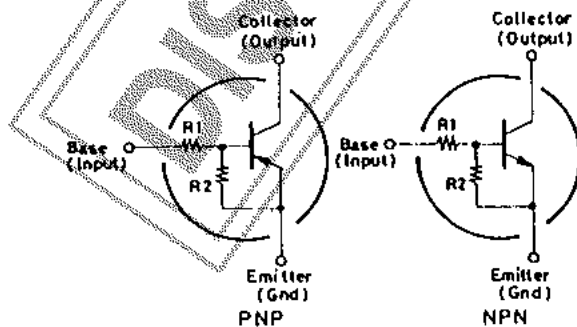
			unit
Collector to Base Voltage	V _{CB0}	(-)50	V
Collector to Emitter Voltage	V _{CE0}	(-)50	V
Emitter to Base Voltage	V _{EB0}	(-)10	V
Collector Current	I _C	(-)100	mA
Collector Current(Pulse)	I _{CP}	(-)200	mA
Collector Dissipation	P _C	300	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics/ $T_a=25^\circ\text{C}$

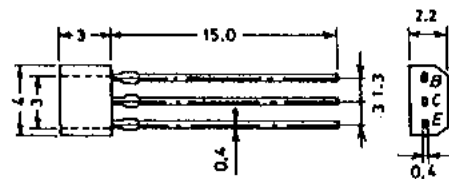
			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} =(-)40V, I _E =0			(-)0.1	μA
Collector Cutoff Current	I _{CE0}	V _{CE} =(-)40V, I _B =0			(-)0.5	μA
Emitter Cutoff Current	I _{EB0}	V _{EB} =(-)5V, I _C =0	(-)170	(-)250	(-)330	μA
DC Current Gain	h _{FE}	V _{CE} =(-)5V, I _C =(-)10mA	50			
Gain-bandwidth product	f _T	V _{CE} =(-)10V, I _C =(-)5mA		250 (200)		MHz
Output Capacitance	C _{ob}	V _{CB} =(-)10V, f=1MHz		3.7 (5.5)		pF
Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C =(-)10mA, I _B =(-)0.5mA	(-)0.1	(-)0.3		V

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Electrical Connection



Case Outline 2033 (unit: mm)



B: Base
C: Collector
E: Emitter
SANYO: SPA

Specifications and information herein are subject to change without notice.

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			min	typ	max	unit
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu A, I_E = 0$	$(-)50$			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)100\mu A, R_{BE} = \infty$	$(-)50$			V
Input Off Voltage	$V_{I(off)}$	$V_{CE} = (-)5V, I_C = (-)100\mu A$	$(-)0.8$	$(-)1.1$	$(-)1.5$	V
Input On Voltage	$V_{I(on)}$	$V_{CE} = (-)0.2V, I_C = (-)10mA$	$(-)1.0$	$(-)2.0$	$(-)4.0$	V
Input Resistance	R_1		7.0	10	13	k Ω
Input Resistance Ratio	R_1/R_2		0.9	1.0	1.1	

■ Sample Application Circuit

