

No. 2505

2SA1582/2SC4113

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 ($R_1 = 2.2k\Omega, R_2 = \infty$)
- Small-sized package (SPA)

(): 2SA1582

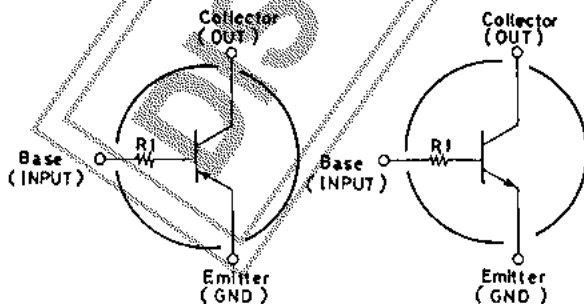
Absolute Maximum Ratings at $T_a = 25^\circ C$

			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
Collector Current (Pulse)	I_{CP}	(-) 200	mA
Collector Dissipation	P_C	300	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to $+150$	$^\circ C$

Electrical Characteristics at $T_a = 25^\circ C$

		min	typ	max	unit
Collector Cutoff Current	I_{CBO} $V_{CB} = (-)40V, I_E = 0$			(-) 0.1	μA
Emitter Cutoff Current	I_{EBO} $V_{EB} = (-)5V, I_C = 0$			(-) 0.1	μA
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} $V_{CB} = (-)10V, f = 1MHz$		3.7 (5.5)		pF
C-E Saturation Voltage	$V_{CE(sat)}$ $I_C = (-)10mA, I_B = (-)0.5mA$			(-) 0.1 (-) 0.3	V
C-B Breakdown Voltage	$V_{(BR)CBO}$ $I_C = (-)10\mu A, I_E = 0$		(-) 50		V
C-E Breakdown Voltage	$V_{(BR)CEO}$ $I_C = (-)100\mu A, R_{BE} = \infty$		(-) 50		V
Input OFF-State Voltage	$V_{I(off)}$ $V_{CE} = (-)5V, I_C = (-)100\mu A$	(-) 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	R_1	1.5	2.2	2.9	$k\Omega$

Electrical Connection

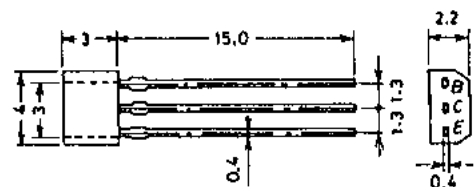


2SA1582(PNP)

2SC4113(NPN)

Case Outline 2033

(unit: mm)



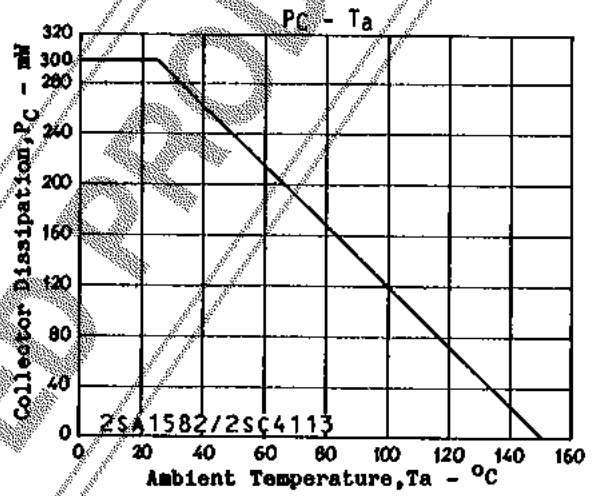
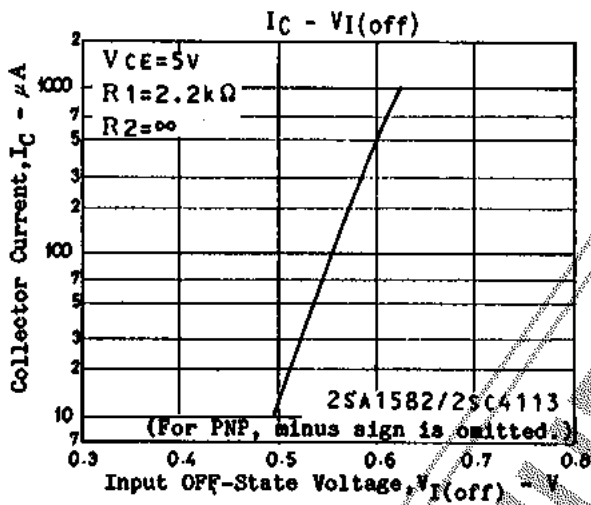
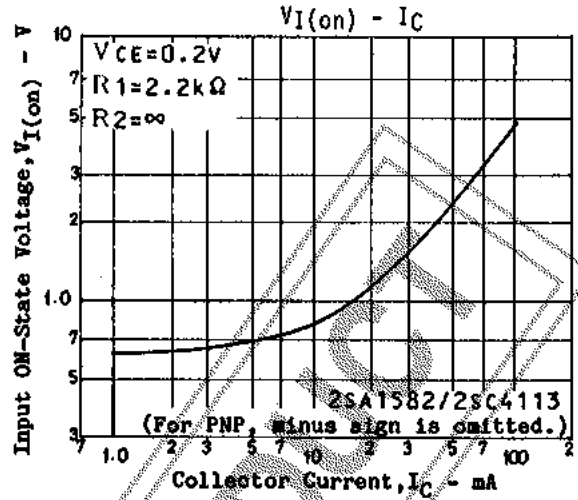
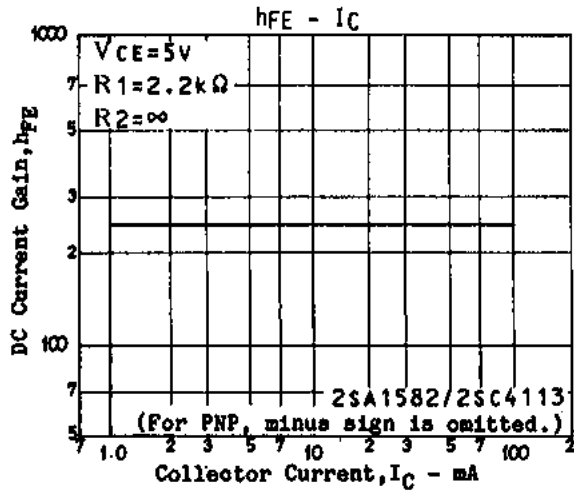
B: Base
C: Collector
E: Emitter

SANYO: SPA

Specifications and information herein are subject to change without notice.

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