

SANYO

No.4720

2SA1865

PNP Epitaxial Planar Silicon Transistor

Muting Circuits, Driver Applications

Features

- On-chip bias resistors ($R_1 = 10k\Omega$, $R_2 = 10k\Omega$).
- Very small-sized package making 2SA1865-applied sets small and slim.
- Small ON resistance.
- High gain-bandwidth product f_T .

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

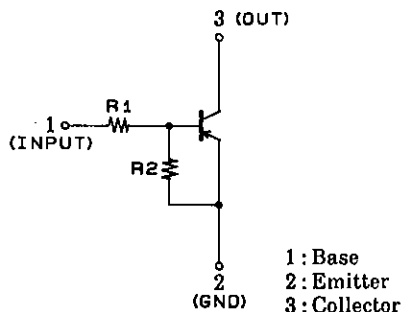
			unit
Collector-to-Base Voltage	V_{CBO}	-15	V
Collector-to-Emitter Voltage	V_{CEO}	-15	V
Emitter-to-Base Voltage	V_{EBO}	-10	V
Input Voltage	V_{IN}	-14	V
Collector Current	I_C	-100	mA
Collector Current (Pulse)	I_{CP}	-200	mA
Base Current	I_B	-20	mA
Collector Dissipation	P_C	150	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

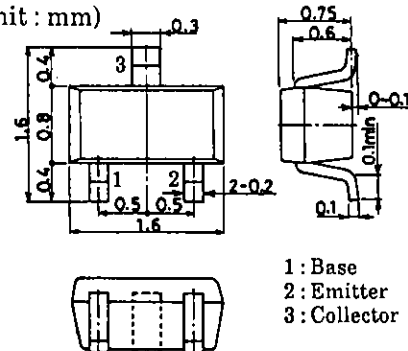
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = -10\text{V}, I_E = 0$			-0.1	μA
Collector Cutoff Current	I_{CEO}	$V_{CE} = -10\text{V}, I_B = 0$			-0.5	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -5\text{V}, I_C = 0$	-195	-250	-360	μA
DC Current Gain	h_{FE}	$V_{CE} = -2\text{V}, I_C = -10\text{mA}$	50			
Gain-Bandwidth Product	f_T *	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$		600		MHz
Output Capacitance	C_{ob} *	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		0.9		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = -2.5\text{mA}, I_B = -0.25\text{mA}$	-20	-60		mV
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-15			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$	-15			V
Input OFF-State Voltage	$V_{IN(off)}$	$V_{CE} = -2\text{V}, I_C = -100\mu\text{A}$	-0.8	-1.2	-1.5	V
Input ON-State Voltage	$V_{IN(on)}$	$V_{CE} = -0.3\text{V}, I_C = -10\text{mA}$	-1.0	-2.0	-4.0	V
Input Resistance	R_1		7.0	10	13	k Ω
Resistance Ratio	R_1/R_2		0.9	1.0	1.1	
ON Resistance	R_{on}	$V_{IN} = -5\text{V}, f = 1\text{MHz}$		6.0		Ω

* : Characteristic of the constituent transistor.

Marking: BA

Electrical Connection**Package Dimensions 2106A**

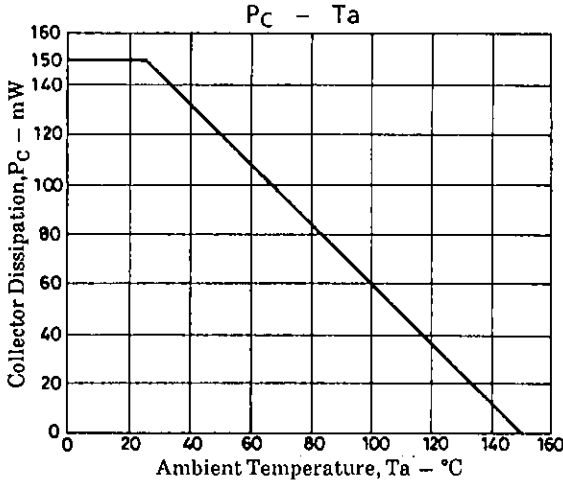
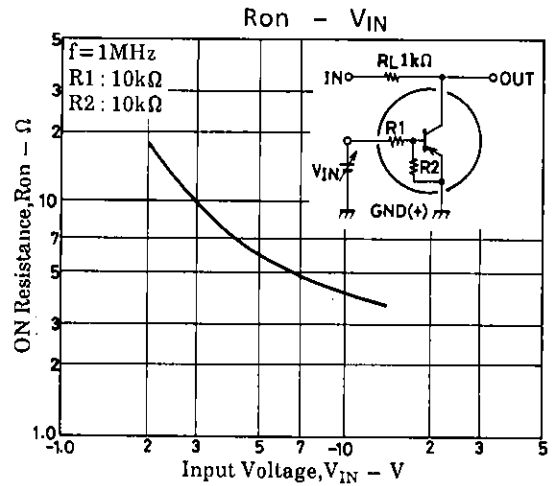
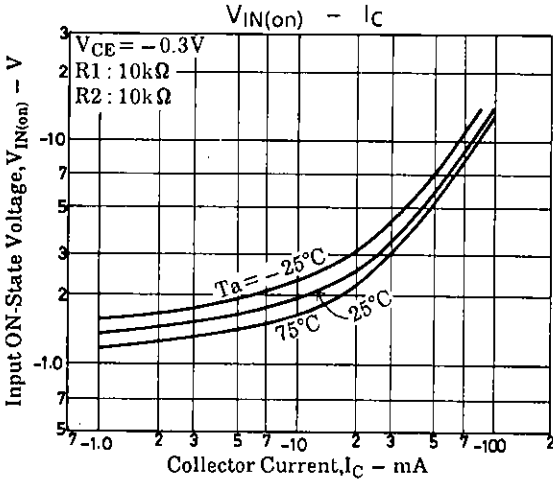
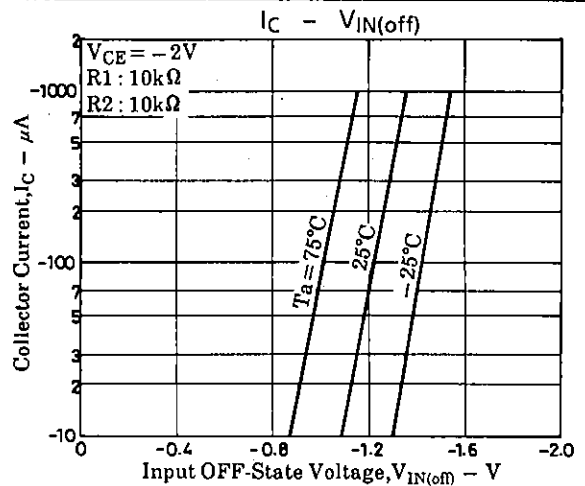
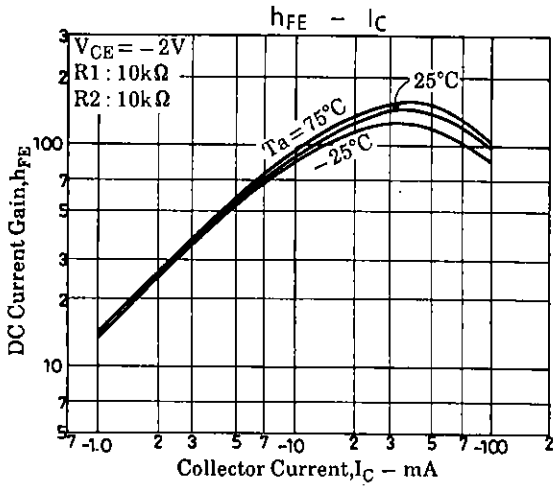
(unit : mm)



SANYO : SMCP

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