Ordering number:4721

PNP Epitaxial Planar Silicon Transistor

2SA1866

Muting Circuits, Driver Applications

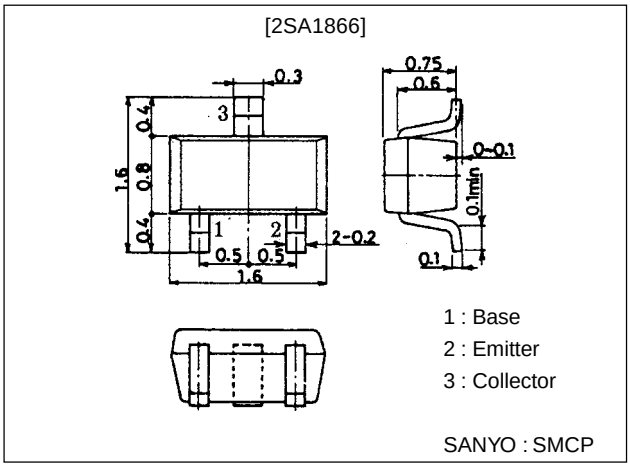
Features

- On-chip bias resistors (R1=47kΩ, R2=47kΩ).
- Very small-sized package making 2SA1866-applied sets small and slim.
- Small ON resistance.
- High gain-bandwidth product f_T.

Package Dimensions

unit:mm

2106A



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	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		–50	mA
Collector Current (Pulse)	I_{CP}		–100	mA
Base Current	I_B		–10	mA
Collector Dissipation	P_C		150	mW
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=–10V, I_E=0			–0.1	μA
Collector Cutoff Current	I_{CEO}	V_{CE}=–10V, I_E=0			–0.5	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=–5V, I_C=0	–30	–53	–80	μA
DC Current Gain	h_{FE}	V_{CE}=–2V, I_C=–5mA	100			
Gain-Bandwidth Product	f_{T*}	V_{CE}=–5V, I_C=–10mA		600		MHz
Output Capacitance	C_{ob*}	V_{CB}=–10V, f=1MHz		0.9		pF

* : Charactersistic of the constituent transistor.

SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=–2mA, I_B=–0.2mA		–20	–60	mV
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=–10μA, I_E=0	–15			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=–1mA, R_{BE}=∞	–15			V
Input OFF-State Voltage	$V_{IN(off)}$	V_{CE}=–2V, I_C=–100μA	–0.8	–1.2	–1.5	V
Input ON-State Voltage	$V_{IN(on)}$	V_{CE}=–0.3V, I_C=–5mA	–1.0	–2.3	–4.0	V
Input Resistance	R1		32	47	62	kΩ
Resistance Ratio	R1/R2		0.9	1.0	1.1	
On Resistance	R_{on}	V_{IN}=–10V, f=1MHz		10.0		Ω

Marking : CA

Electrical Connection