

**2SA1866**

Muting Circuits, Driver Applications

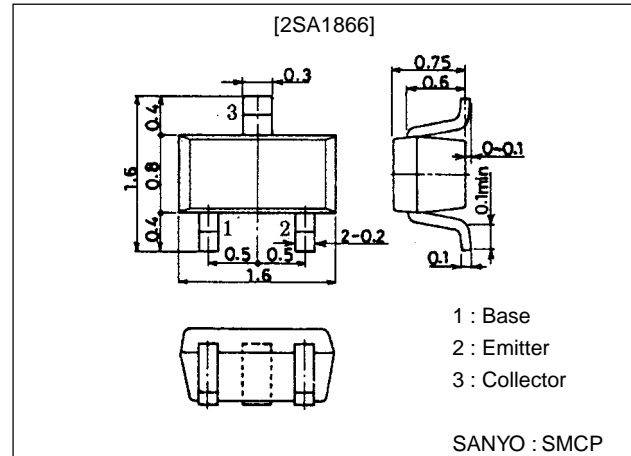
Features

- On-chip bias resistors ($R_1=47k\Omega$, $R_2=47k\Omega$).
- 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 $T_a = 25^\circ\text{C}$

Parameter	Symbol	Condition	Rating	Unit
Collector-to-Base Voltage	CBO		-15	
Collector-to-Emitter Voltage	CEO		-15	
Emitter-to-Base Voltage	EBO		-10	
Input Voltage	IN		-14	
Collector Current	C		-80	mA
Collector Current (Pulse)	CP		-100	mA
Base Current	B		-10	mA
Collector Dissipation	C		150	mW
Junction Temperature	T		150	$^\circ\text{C}$
Storage Temperature	Tst		-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Condition	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	CBO	$V_{CB}=-10\text{V}$, $I_E=0$			-0.5	μ
Collector Cutoff Current	CEO	$V_{CE}=-10\text{V}$, $I_E=0$			-0.5	μ
Emitter Cutoff Current	EBO	$V_{EB}=-5\text{V}$, $I_C=0$	-3	-6	-8	μ
DC Current Gain	FE	$V_{CE}=-2\text{V}$, $I_C=0.5\text{mA}$	10			
Gain-Bandwidth Product	T^*	$V_{CE}=-5\text{V}$, $I_C=-10\text{mA}$		600		MHz
Output Capacitance	ob*	$V_{CB}=910\text{V}$, $f=1\text{MHz}$		0F		pF

* : Characteristic of the constituent transistor.

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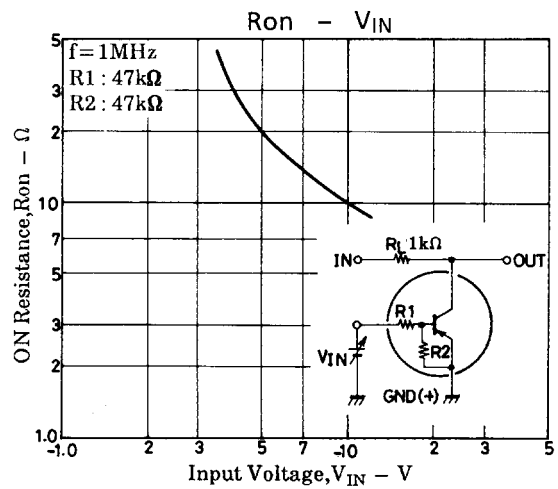
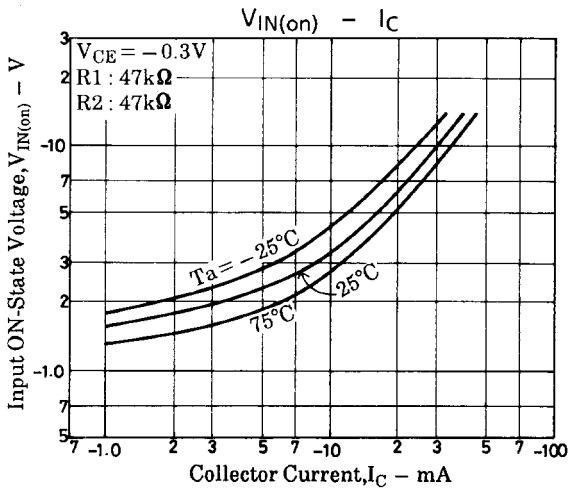
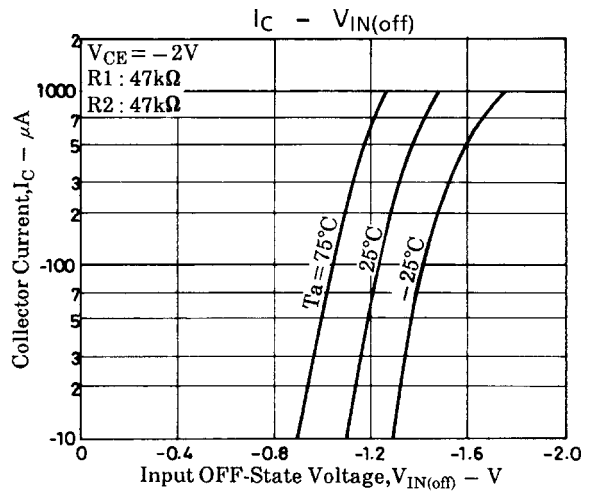
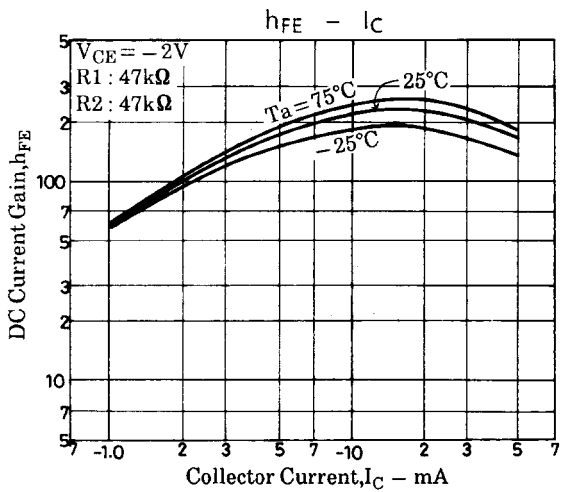
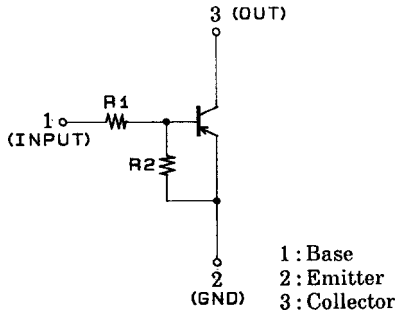
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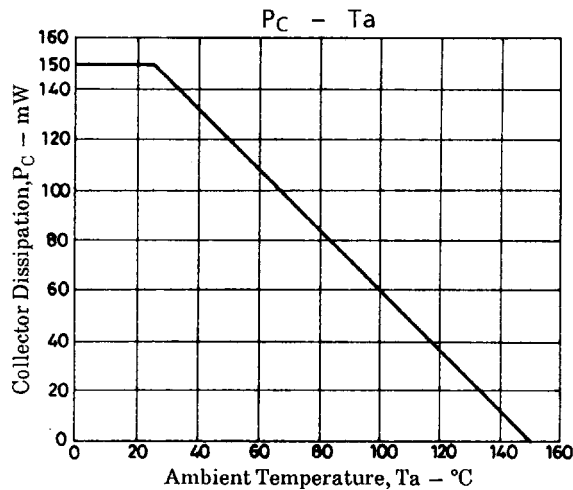
2SA1866

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -2\text{mA}, I_B = -0.2\text{mA}$		-20	-60	mV
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-15			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$	-15			V
Input OFF-State Voltage	$V_{IN(off)}$	$V_{CE} = -2\text{V}, I_C = 8100\mu\text{A}$	-0.2	-5	-V	
Input ON-State Voltage	$V_{IN(on)}$	$V_{CE} = -0.3\text{V}, I_C = 65\text{mA}$	-3	-0.2	-V	
Input Resistance	R2		37	42	6k	Ω
Resistance Ratio	R1/R		00	11	1	
ON Resistance	R_{on}	$V_{IN} = 10\text{V}, f = 1\text{MHz}$		10		Ω

Marking : CA

Electrical Connection





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