



# Muting Circuit, Driver Applications

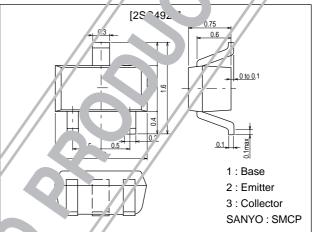
#### **Features**

- · High DC current gain.
- · On-chip bias resistance (R1=4.7k $\Omega$ , R2=4.7k $\Omega$ ).
- · Very small-sized package permitting 2SC4920-applied sets to be made smaller and slimmer.
- · Small ON resistance.

## Package Dimensions

unit:mm

2106A



### **Specifications**

### **Absolute Maximum Ratings** at $Ta = 25^{\circ}C$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CPO</sub>		25	V
Collector-to-Emitter Voltage	VCEO		20	V
Emitter-to-Base Voltage	V <u>r</u> BO		10	V
Input Voltage	V <sub>IN</sub>	<del>-                                    </del>	18	V
Collector Current	Ic		100	mA
Collector Current (Pulse)	الت		200	mA
Base Current	'В	//	20	mA
Collector Dissipation	P <sub>C</sub>	//	150	mW
Junction Temperature	1)	//	150	°C
Storage Temperature	Tstg	/	-55 to +150	°C

### Electrical Characteristics at Ta 25 C

Parame er	Symbol Conditions		Ratings			Unit
r alameter	Symbol	Conditions	min	typ	max	J.III
Collector Cutoff Current	ICFO	V <sub>CB</sub> =20V, I <sub>E</sub> =0			0.1	μΑ
	ICFO	V <sub>CE</sub> =15V, I <sub>B</sub> =0			0.5	μΑ
Emitter Cutoff Current	I <u>r</u> BO	V <sub>EB</sub> =5V, I <sub>C</sub> =0	410	532	760	μΑ
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =2V, I <sub>C</sub> =20mA	80			
Gain-Bandwidth Product	f <sub>T</sub> *	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA		240		MHz
Output Capacitance	Cob*	V <sub>CB</sub> =10V, f=1MHz		1.4		pF

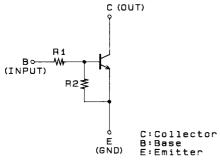
\* Characteristic of ... titu t transis or Marking . EA

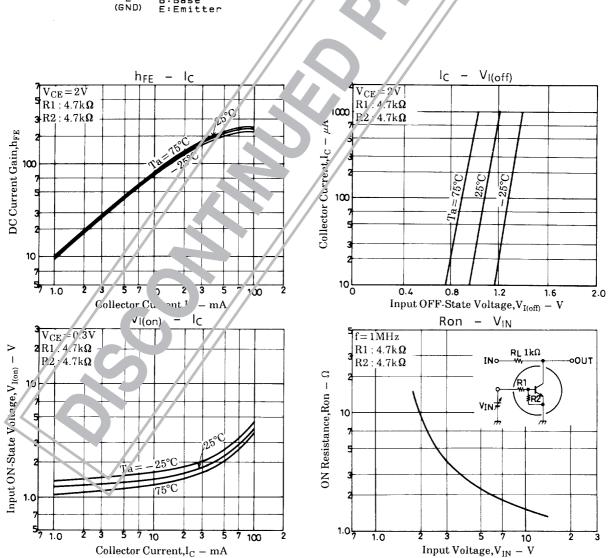
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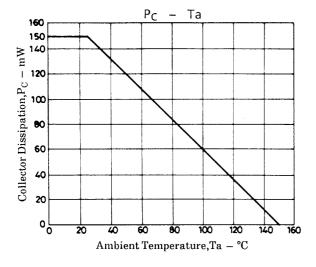
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Parameter	Symbol	Conditions	Ratings			Unit
		Conditions		typ	max	01111
Collector-to-Emitter Saturation Voltage	VCE(sat)	I <sub>C</sub> =5mA, I <sub>B</sub> =0.5mA		10	30	mV
Collector-to-Base Breakdown Voltage	V <sub>(BR)</sub> CBO	I <sub>C</sub> =10μA, I <sub>E</sub> =0	25			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	I <sub>C</sub> =1mA, R <sub>BE</sub> =∞	20			V
Input OFF-State Voltage	V <sub>I(off)</sub>	V <sub>CE</sub> =2V, I <sub>C</sub> =100μA	0.7	1.1	1.4	V
Input ON-State Voltage	V <sub>I(on)</sub>	V <sub>CE</sub> =0.3V, I <sub>C</sub> =20mA	1.0	1.6	3.0	V
Input Resistance	R1		3.3	1.7	6.1	kΩ
Resistance Ratio	R1/R2		0.9	1.0	1.1	
ON Resistance	Ron	V <sub>IN</sub> =5V, f=1MHz		2.2		Ω

### **Electrical Connection**







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