2SC4922



# **Muting Circuit, Driver Applications**

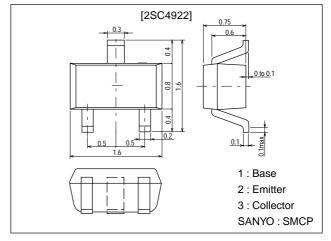
#### **Features**

- · High DC current gain.
- · On-chip bias resistance (R1=47k $\Omega$ , R2=47k $\Omega$ ).
- · Very small-sized package permitting 2SC4922-applied sets to be made smaller and slimmer.
- · Small ON resistance.

## **Package Dimensions**

unit:mm

2106A



# **Specifications**

### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		25	V
Collector-to-Emitter Voltage	V <sub>CEO</sub>		20	V
Emitter-to-Base Voltage	V <sub>EBO</sub>		10	V
Input Voltage	V <sub>IN</sub>		18	V
Collector Current	lС		100	mA
Collector Current (Pulse)	I <sub>CP</sub>		200	mA
Base Current	IB		20	mA
Collector Dissipation	PC		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
	Symbol		min	typ	max	Oilit
Collector Cutoff Current	ICBO	V <sub>CB</sub> =20V, I <sub>E</sub> =0			0.1	μA
	ICEO	V <sub>CE</sub> =15V, I <sub>B</sub> =0			0.5	μA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0	30	53	80	μΑ
DC Current Gain	hFE	V <sub>CE</sub> =2V, I <sub>C</sub> =5mA	200			
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

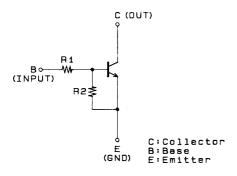
<sup>\*</sup> Characteristic of the constituent transistor.

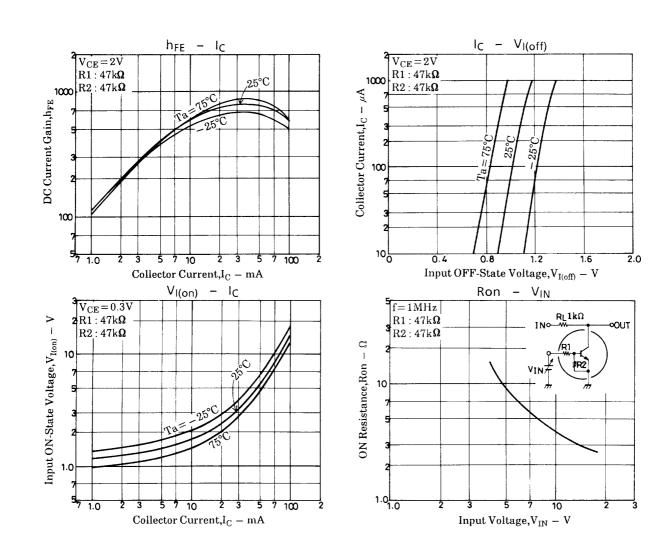
Marking : GA

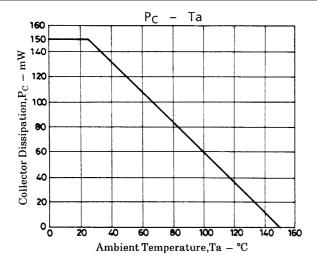
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	VCE(sat)	I <sub>C</sub> =2mA, I <sub>B</sub> =0.2mA		10	30	mV
Collector-to-Base Breakdown Voltage	V <sub>(BR)</sub> CBO	$I_{C}=10\mu A, I_{E}=0$	25			V
Collector-to-Emitter Breakdown Voltage	V <sub>(BR)</sub> 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	1.0	1.4	V
Input ON-State Voltage	V <sub>I(on)</sub>	V <sub>CE</sub> =0.3V, I <sub>C</sub> =5mA	1.0	1.5	3.0	V
Input Resistance	R1		32	47	62	kΩ
Resistance Ratio	R1/R2		0.9	1.0	1.1	
ON Resistance	Ron	V <sub>IN</sub> =10V, f=1MHz		4.0		Ω

### **Electrical Connection**







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