

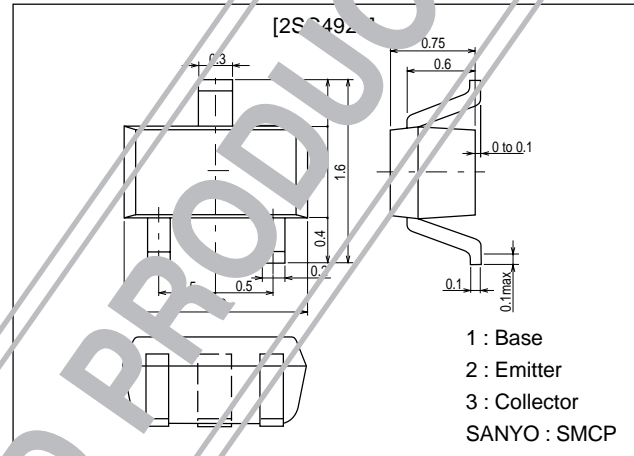
**SANYO****2SC4920****Muting Circuit, Driver Applications****Features**

- 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  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		25	V
Collector-to-Emitter Voltage	$V_{CE0}$		20	V
Emitter-to-Base Voltage	$V_{EB0}$		10	V
Input Voltage	$V_{IN}$		18	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  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=20\text{V}$ , $I_E=0$			0.1	$\mu\text{A}$
	$I_{CEO}$	$V_{CE}=15\text{V}$ , $I_B=0$			0.5	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=5\text{V}$ , $I_C=0$	410	532	760	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE}=2\text{V}$ , $I_C=20\text{mA}$	80			
Gain-Bandwidth Product	$f_T^*$	$V_{CE}=5\text{V}$ , $I_C=10\text{mA}$		240		MHz
Output Capacitance	$C_{ob}^*$	$V_{CB}=10\text{V}$ , $f=1\text{MHz}$		1.4		pF

\* Characteristic of the constituent transistor  
Marking: EA

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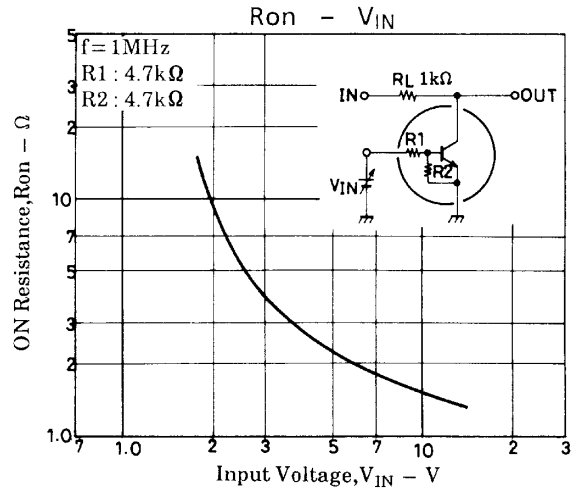
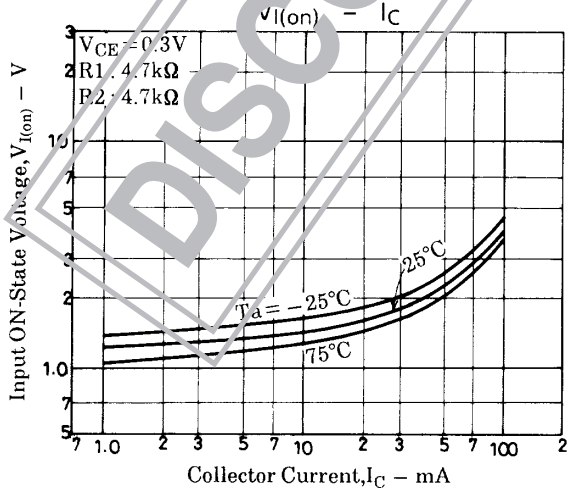
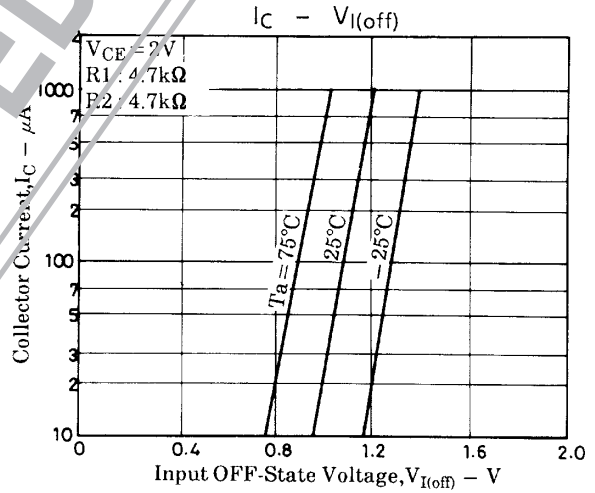
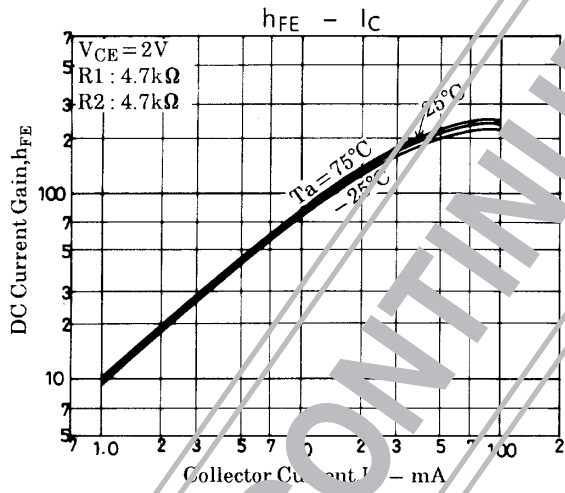
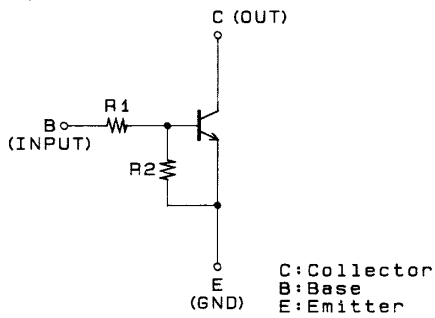
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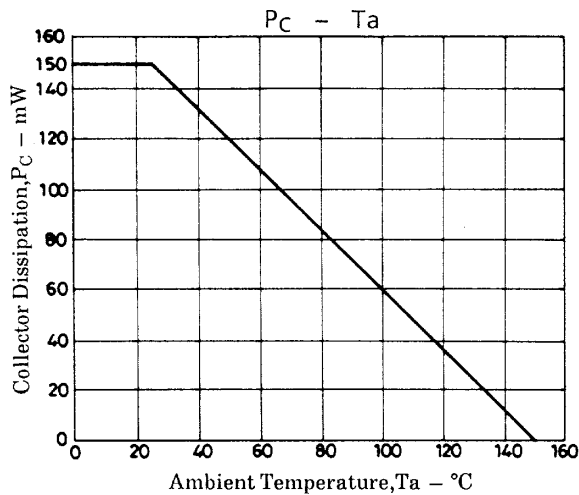
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# 2SC4920

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5mA, I_B=0.5mA$		10	30	mV
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	25			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	20			V
Input OFF-State Voltage	$V_{I(off)}$	$V_{CE}=2V, I_C=100\mu A$	0.7	1.1	1.4	V
Input ON-State Voltage	$V_{I(on)}$	$V_{CE}=0.3V, I_C=20mA$	1.0	1.6	3.0	V
Input Resistance	R1		3.3	4.7	6.1	k $\Omega$
Resistance Ratio	R1/R2		0.9	1.0	1.1	
ON Resistance	Ron	$V_{IN}=5V, f=1MHz$		2.2		$\Omega$

## Electrical Connection





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