

SANYO

Muting Circuit, Driver Applications

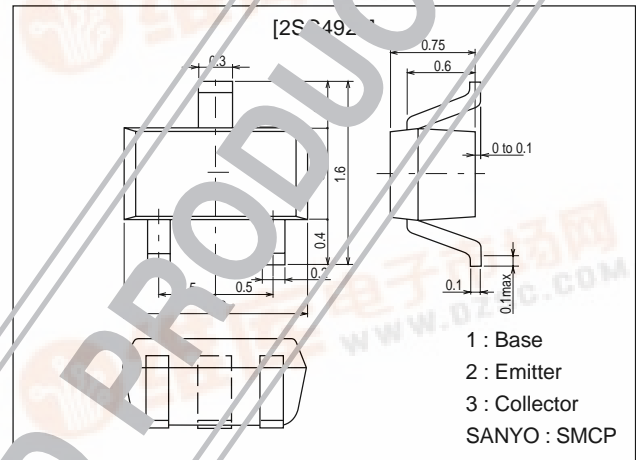
Features

- High DC current gain.
- On-chip bias resistance (R1=4.7kΩ, R2=4.7kΩ).
- 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°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	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CB0}	V _{CB} =20V, I _E =0			0.1	μA
	I _{CE0}	V _{CE} =15V, I _B =0			0.5	μA
Emitter Cutoff Current	I _{EB0}	V _{EB} =5V, I _C =0	410	532	760	μA
DC Current Gain	h _{FE}	V _{CE} =2V, I _C =20mA	80			
Gain-Bandwidth Product	f _T *	V _{CE} =5V, I _C =10mA		240		MHz
Output Capacitance	Cob*	V _{CB} =10V, f=1MHz		1.4		pF

* Characteristic of discrete transistor
Marking: EA

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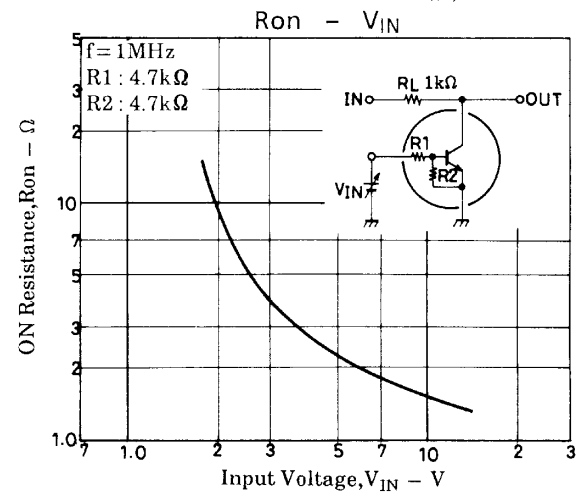
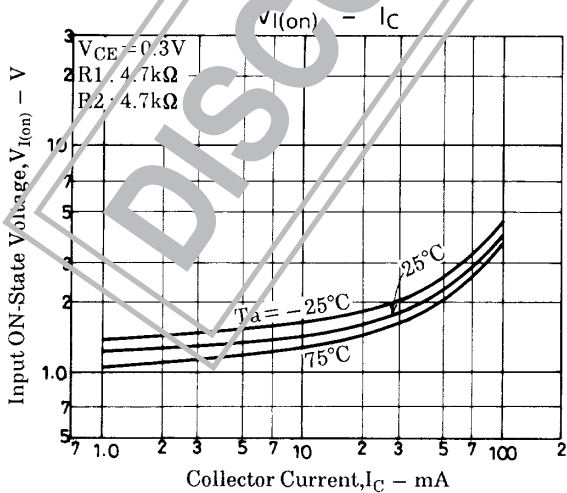
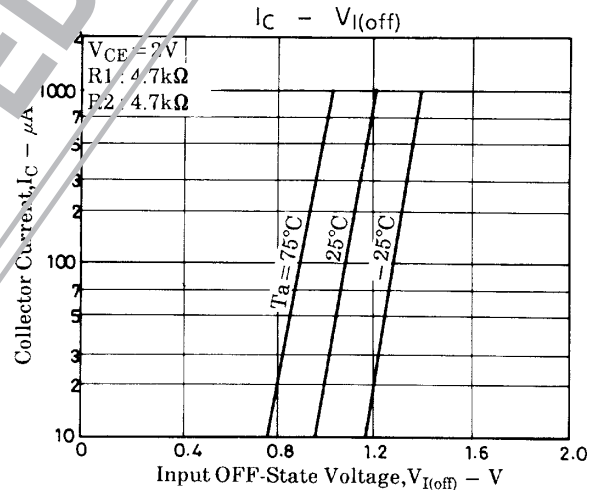
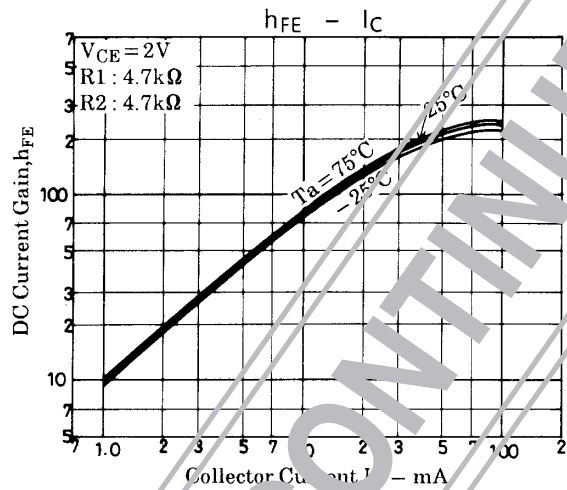
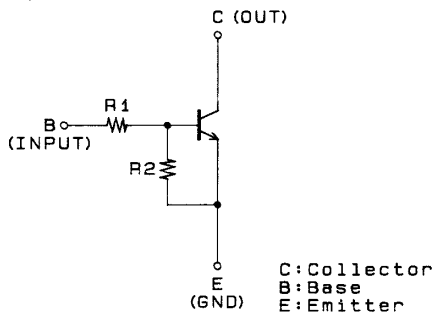
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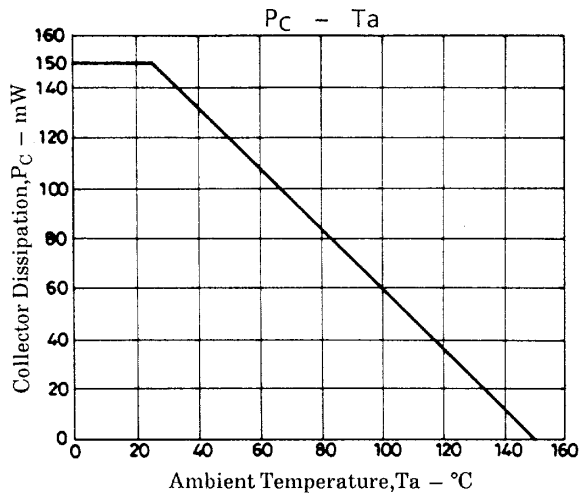
2SC4920

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 Ω
Resistance Ratio	R1/R2		0.9	1.0	1.1	
ON Resistance	Ron	$V_{IN}=5V, f=1MHz$		2.2		Ω

Electrical Connection



2SC4920



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