Ordering number:EN4766

NPN Epitaxial Planar Silicon Transistor

2SC4920

Muting Circuit, Driver Applications

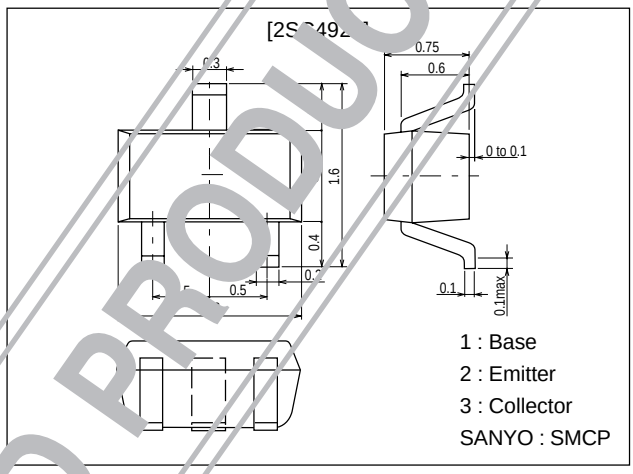
Features

- 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_{CBO}		25	V
Collector-to-Emitter Voltage	V_{CEO}		20	V
Emitter-to-Base Voltage	V_{EBO}		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	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=20V, I_E=0			0.1	μA
	I_{CEO}	V_{CE}=15V, I_B=0			0.5	μA
Emitter Cutoff Current	I_{EBO}	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 the constituent transistor

Marking : EA

SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

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=10μA, I_E=0	25			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, R_{BE}=∞	20			V
Input OFF-State Voltage	$V_{I(off)}$	V_{CE}=2V, I_C=100μA	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	kΩ
Resistance Ratio	R1/R2		0.9	1.0	1.1	
ON Resistance	Ron	V_{IN}=5V, f=1MHz		2.2		Ω

Electrical Connection