

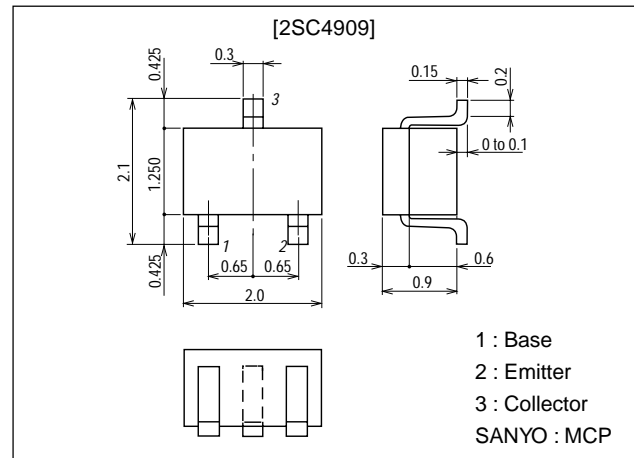
**2SC4909****Muting Circuits, Drivers****Features**

- High DC current gain.
- On-chip bias resistance ( $R_1=47k\Omega$ ,  $R_2=47k\Omega$ ).
- Very small-sized package permitting 2SC4909-applied sets to be made smaller and slimmer.
- Small ON resistance.

**Package Dimensions**

unit:mm

2059B

**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	$V_{EBO}$		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	$P_C$		200	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	$I_{CB0}$	$V_{CB}=20\text{V}$ , $I_E=0$			0.1	$\mu\text{A}$
	$I_{CE0}$	$V_{CE}=15\text{V}$ , $I_B=0$			0.5	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=5\text{V}$ , $I_C=0$	30	53	80	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE}=2\text{V}$ , $I_C=5\text{mA}$	200			
Gain-Bandwidth Product	$f_T$	$V_{CE}=5\text{V}$ , $I_C=10\text{mA}$		240		MHz

Marking : JN

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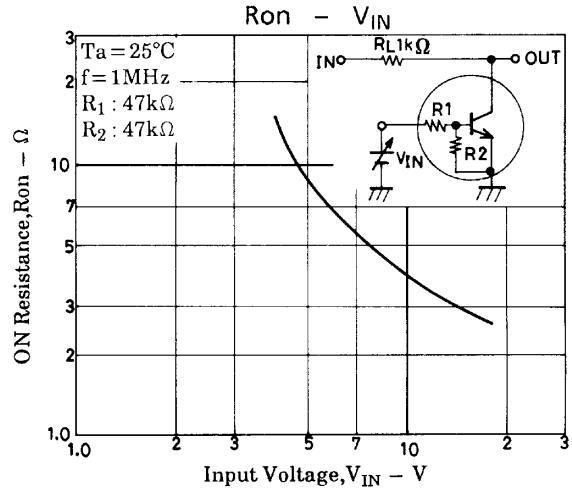
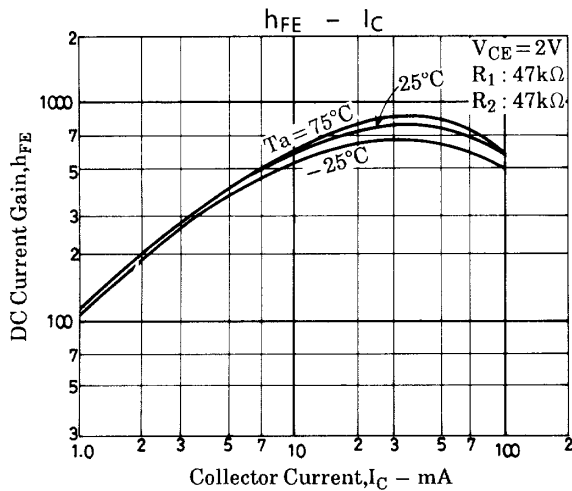
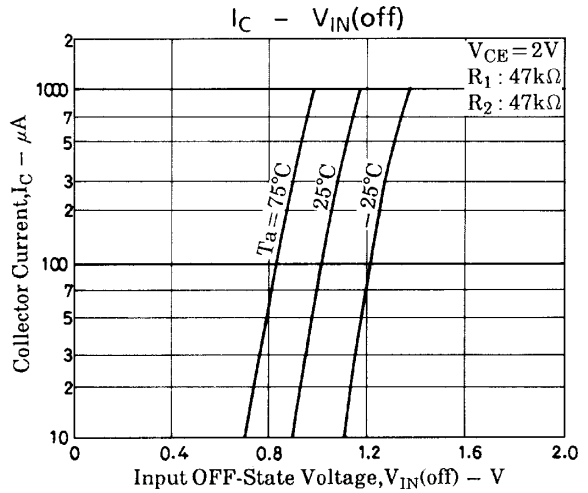
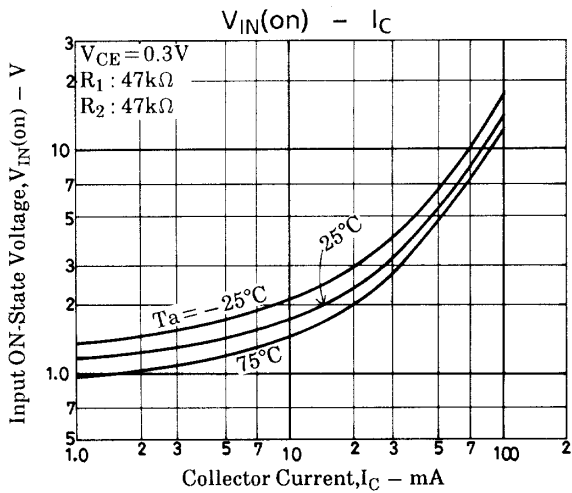
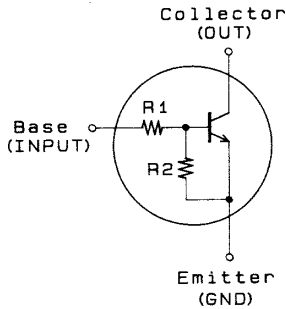
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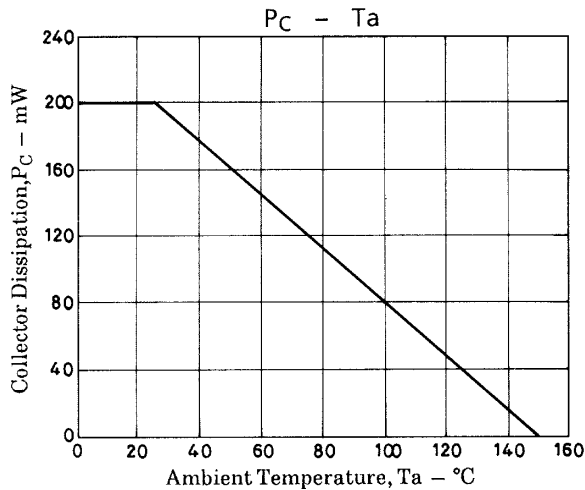
12599HA (KT)/N3093TH (KOTO) BX-0302 No.4410-1/3

# 2SC4909

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2mA, I_B=0.2mA$		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	$V_{IN(off)}$	$V_{CE}=2V, I_C=100\mu A$	0.7	1.0	1.4	V
Input ON-State Voltage	$V_{IN(on)}$	$V_{CE}=0.3V, I_C=5mA$	1.0	1.5	3.0	V
Input Resistance	$R_1$		32	47	62	k $\Omega$
Resistance Ratio	$R_1/R_2$		0.9	1.0	1.1	
ON Resistance	$R_{on}$	$V_{IN}=10V, f=1MHz$		4.0		$\Omega$

## Electrical Connection





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