

SANYO	No.4410	2SC4909
		NPN Epitaxial Planar Silicon Transistor
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.

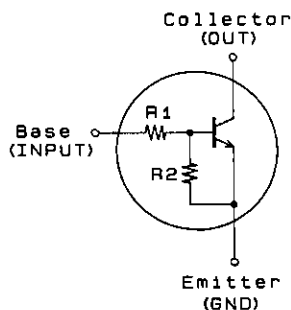
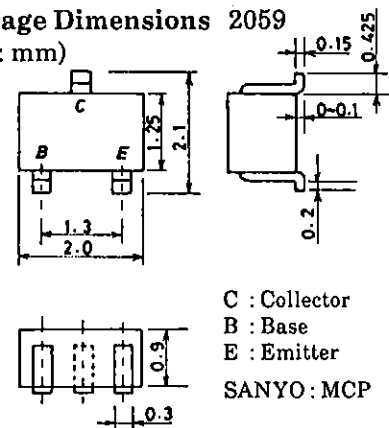
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

			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	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

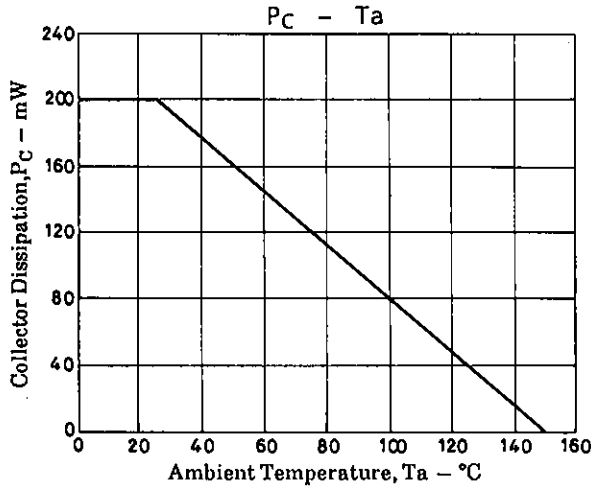
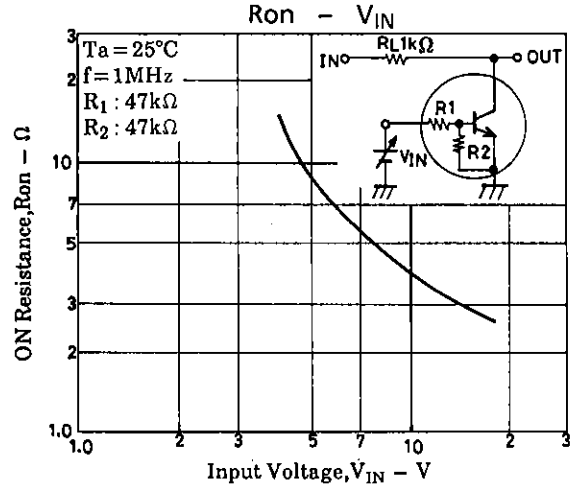
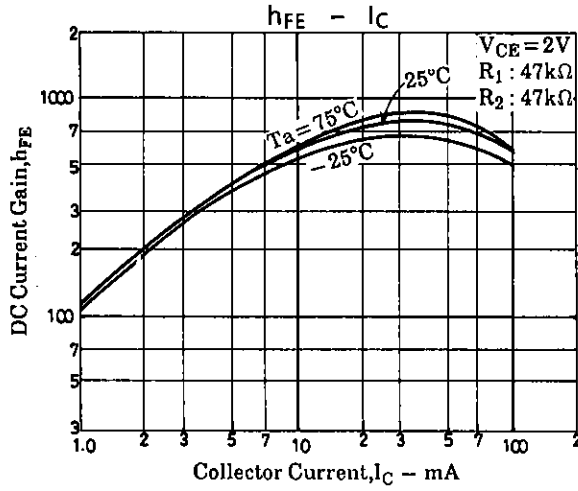
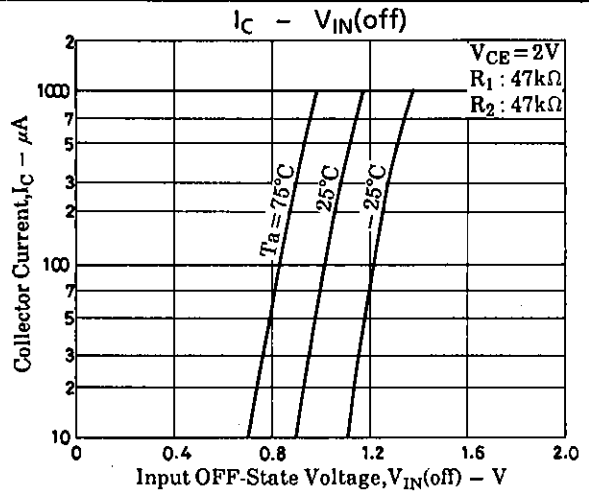
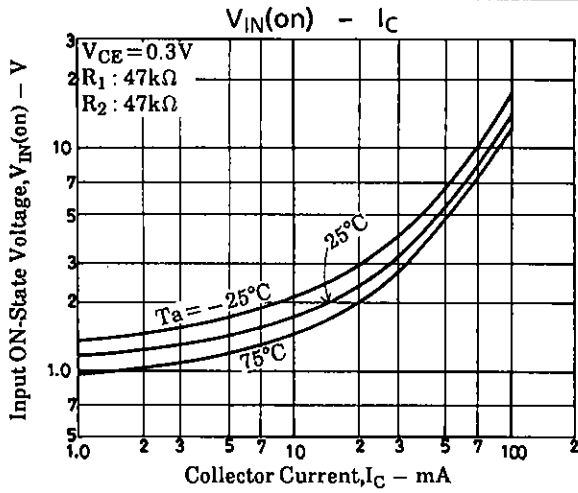
Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 20\text{V}, I_E = 0$			0.1	μA
Collector Cutoff Current	I_{CEO}	$V_{CE} = 15\text{V}, I_B = 0$			0.5	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$	30	53	80	μA
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
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 2\text{mA}, I_B = 0.2\text{mA}$		10	30	mV
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	25			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	20			V
Input OFF-State Voltage	$V_{IN(off)}$	$V_{CE} = 2\text{V}, I_C = 100\mu\text{A}$	0.7	1.0	1.4	V
Input ON-State Voltage	$V_{IN(on)}$	$V_{CE} = 0.3\text{V}, I_C = 5\text{mA}$	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}	$V_{IN} = 10\text{V}, f = 1\text{MHz}$		4.0		Ω

Marking: JN

Electrical Connection**Package Dimensions 2059**
(unit: mm)

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



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