Ordering number: EN 4409

SANYO

No.4409

2SA1830/2SC4734

2SA1830 : PNP Epitaxial Planar Silicon Transistor
2SC4734 : NPN Triple Diffused Planar Silicon Transistor

High-Voltage Driver Applications

Features

- Large current capacity (I_C = 2A).
- High breakdown voltage (V_{CEO} ≧ 400V).
- Possible to offer the 2SA1830/2SC4734 devices in a tape reel packaging, which facilitates automatic insertion.

( ) : 2SA1830

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector-to-Base Voltage	V_{CBO}	(−)400	V
Collector-to-Emitter Voltage	V_{CEO}	(−)400	V
Emitter-to-Base Voltage	V_{EBO}	(−)5	V
Collector Current	I_C	(−)2	A
Collector Current(Pulse)	I_{CP}	(−)4	A
Collector Dissipation	P_C	1.5	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	−55 to +150	°C

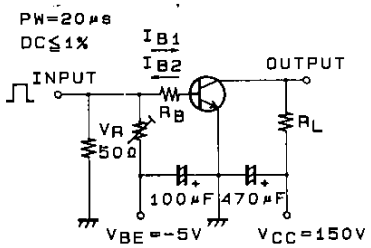
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=(−)300V, I_E=0			(−)1.0	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(−)4V, I_C=0			(−)1.0	μA
DC Current Gain	h_{FE}	V_{CE}=(−)10V, I_C=(−)100mA	40※		200※	
Gain-Bandwidth Product	f_T	V_{CE}=(−)10V, I_C=(−)100mA		(40)60		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	I_C=(−)500mA, I_B=(−)50mA			(−)1.0	V
B-E Saturation Voltage	$V_{BE(sat)}$	I_C=(−)500mA, I_B=(−)50mA			(−)1.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	I_C=(−)10μA, I_E=0	(−)400			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_C=(−)1mA, R_{BE}=∞	(−)400			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	I_E=(−)10μA, I_C=0	(−)5			V
Output Capacitance	Cob	V_{CB}=(−)30V, f=1MHz		(25)15		pF
Turn-ON Time	t_{on}	See specified Test Circuit.		(0.12)0.085		μs
Storage Time	t_{stg}	〃		(3.0)4.0		μs
Fall Time	t_f	〃		(0.3)0.6		μs

※ : The 2SA1830/2SC4734 are classified by 100mA h_{FE} as follows:

40 C 80	60 D 120	100 E 200

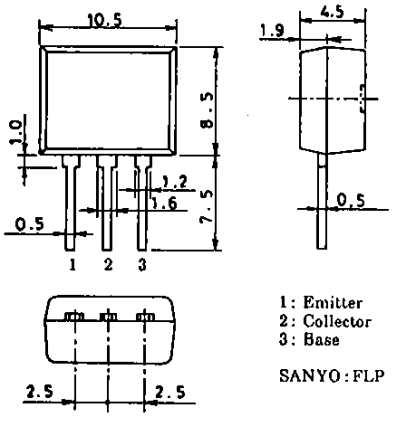
Switching Time Test Circuit



$10I_{B1} = -10I_{B2} = I_C = 500mA$
$R_L = 300Ω$, $R_B = 20Ω$ at $I_C = 500mA$
For PNP, the polarity is reversed.

A01174

Package Dimensions 2084A
(unit: mm)



1 : Emitter
2 : Collector
3 : Base

SANYO : FLP

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