2SA1830/2SC4734



High-Voltage Driver Applications

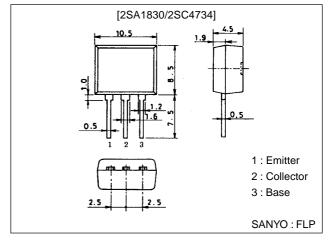
Features

- · 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.

Package Dimensions

unit:mm

2084A



(): 2SA1830

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	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	IC		(-)2	Α
Collector Current (Pulse)	I _{CP}		(-)4	Α
Collector Dissipation	PC		1.5	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions		Unit		
Falametei	Symbol		min	typ	max	Offile
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	hFE	V _{CE} =(-)10V, I _C =(-)100mA	40*		200*	
Gain-Bandwidth Product	f _T	V _{CE} =(-)10V, I _C =(-)100mA		(40)60		MHz
Output Capacitance	C _{ob}	V _{CB} =(-)30V, f=1MHz		(25)15		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =(-)500mA, I _B =(-)50mA			(–)1.0	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =(-)500mA, I _B =(-)50mA			(–)1.0	V

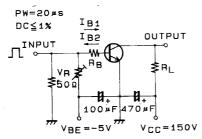
^{*}: The 2SA1830/2SC4734 are classified by 100mA h_{FE} as follows:

	40	С	80	60	D	120	100	Ε	200
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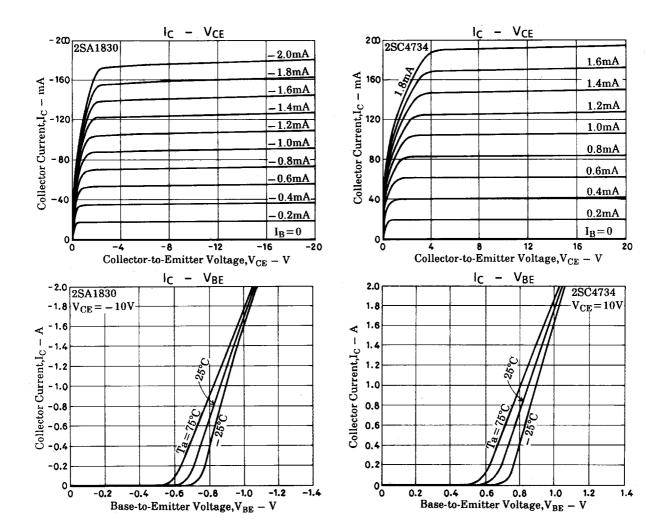
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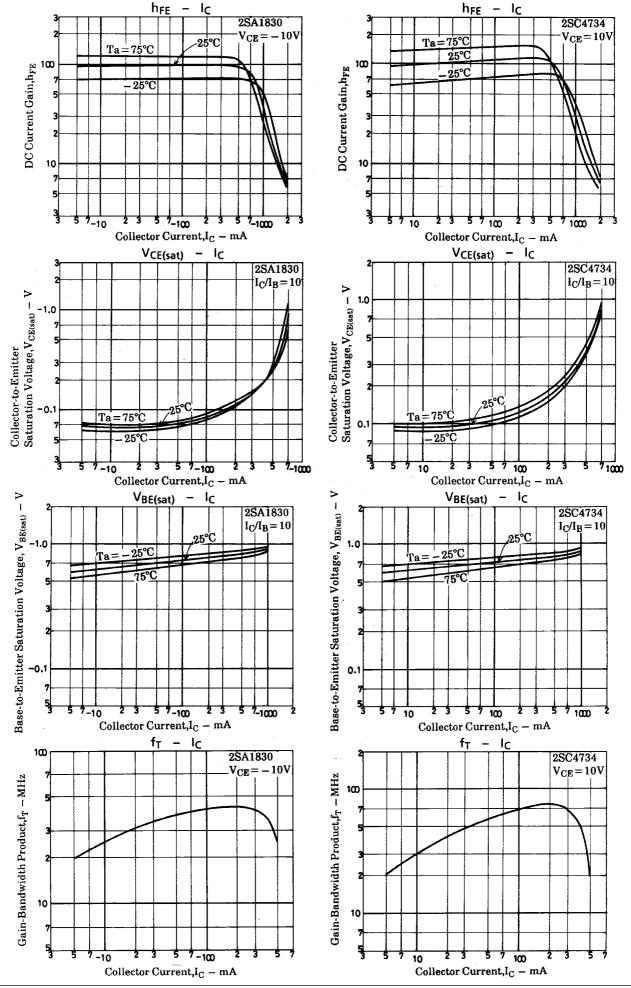
Parameter	Symbol	Conditions	Ratings			Unit
raidilletei	Syllibol	oi Conditions		typ	max	Offic
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =(-)10μA, I _E =0	(-)400			V
Collector-to-Emitter Breakdown Voltage	V _(BR) CEO	I _C =(–)1mA, R _{BE} =∞	(-)400			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =(-)10μA, I _C =0	(–)5			V
Turn-ON Time	ton	See specified Test Circuit		(0.12)		μs
				0.085		μs
Storage Time	t _{stg}	See specified Test Clrcuit		(3.0)		μs
				4.0		μs
Fall Time	t _f	See specified Test Circuit		(0.3)		μs
				0.6		μs

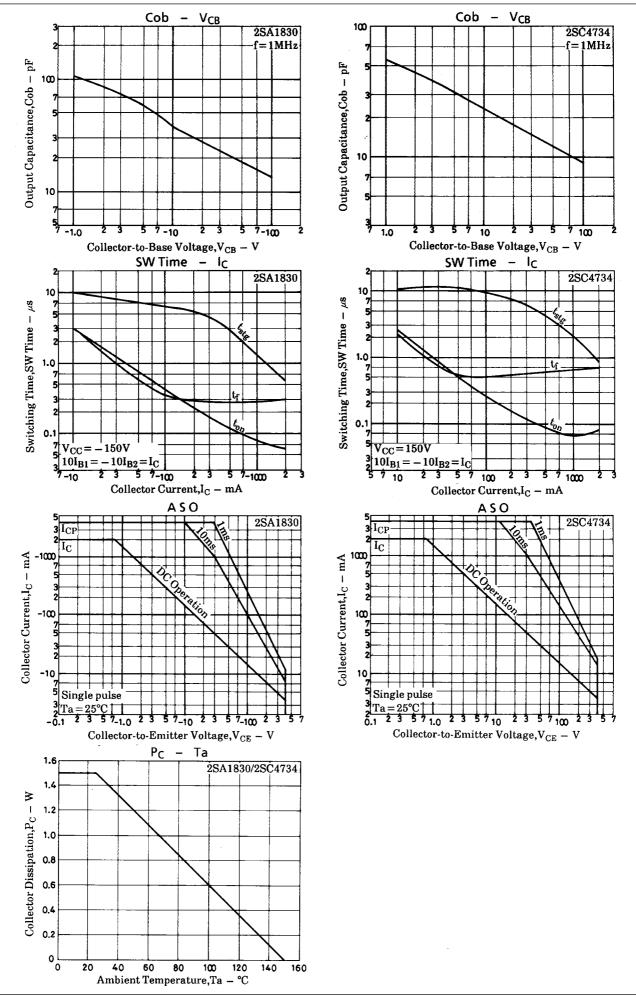
Switching Time Test Circuit



 $\begin{array}{l} 10I_{B1}=-10I_{B2}=I_C=500mA \\ R_L=300\Omega,\,R_B=20\Omega \text{ at }I_C=500mA \\ \text{For PNP, the polarity is reversed.} \\ \text{(Unit resistance : }\Omega,\,\text{capacitacne : F)} \end{array}$







2SA1830/2SC4734

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