

SANYO

No.4135

2SA1855/2SC4837

PNP/NPN Epitaxial Planar Silicon Transistors

50V/4A Switching Applications**Applications**

- Power supplies, relay drivers, lamp drivers.

Features

- Adoption of FBET and MBIT processes.
- Large allowable collector dissipation.
- Low saturation voltage.
- Wide ASO and large current capacity.
- Usage of radial taping to meet automatic mounting.

(): 2SA1855

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

Collector-to-Base Voltage	V_{CB0}	(-)60	V
Collector-to-Emitter Voltage	V_{CE0}	(-)50	V
Emitter-to-Base Voltage	V_{EB0}	(-)6	V
Collector Current	I_C	(-)4	A
Collector Current (Pulse)	I_{CP}	(-)6	A
Collector Dissipation	P_C	1.5	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

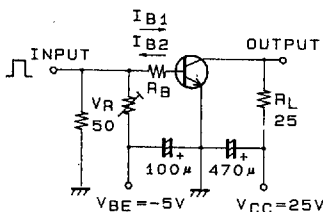
		min	typ	max	unit
Collector Cutoff Current	I_{CBO}			(-)1	μA
Emitter Cutoff Current	I_{EBO}			(-)1	μA
DC Current Gain	$h_{FE}(1)$	100*		400*	
	$h_{FE}(2)$	40			
Gain Bandwidth Product	f_T		150		MHz
Output Capacitance	C_{ob}		(39)25		pF

 $V_{CB} = (-)40\text{V}, I_E = 0$ $V_{EB} = (-)4\text{V}, I_C = 0$ $V_{CE} = (-)2\text{V}, I_C = (-)100\text{mA}$ $V_{CE} = (-)2\text{V}, I_C = (-)3\text{A}$ $V_{CE} = (-)10\text{V}, I_C = (-)50\text{mA}$ $V_{CB} = (-)10\text{V}, f = 1\text{MHz}$

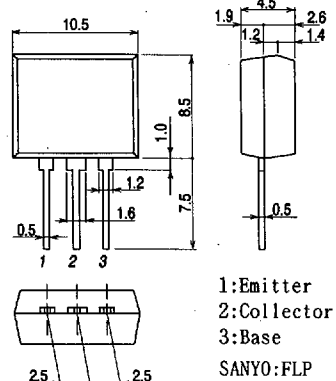
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*: The 2SA1855/2SC4837 are classified by 100mA h_{FE} as follows :

100	R	200	140	S	280	200	T	400
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Switching Time Test CircuitPW = 20 μs DC $\leq 1\%$  $I_C = 10I_{B1} = -10I_{B2} = 1\text{A}$ A00651Unit (Resistance : Ω , Capacitance : F)**Package Dimensions 2084B**

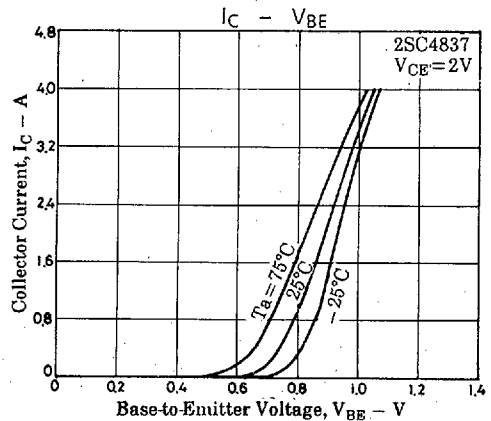
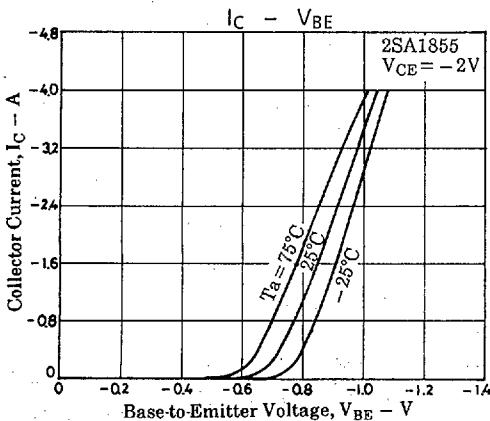
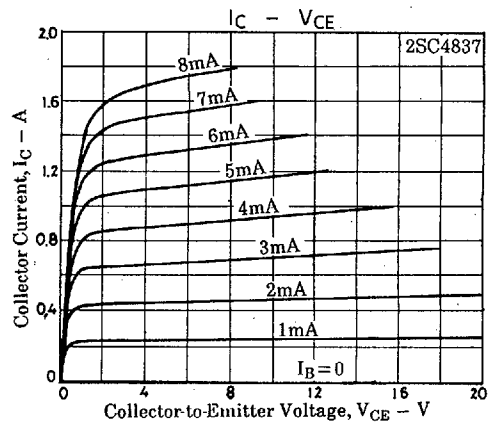
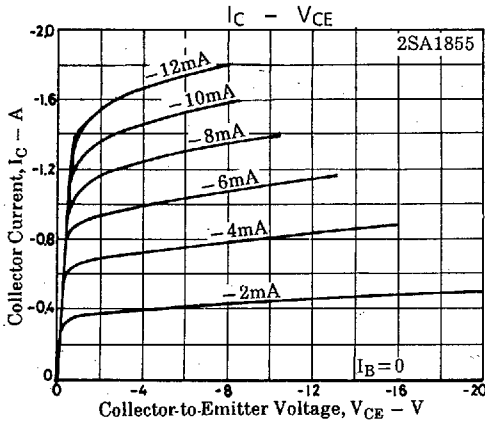
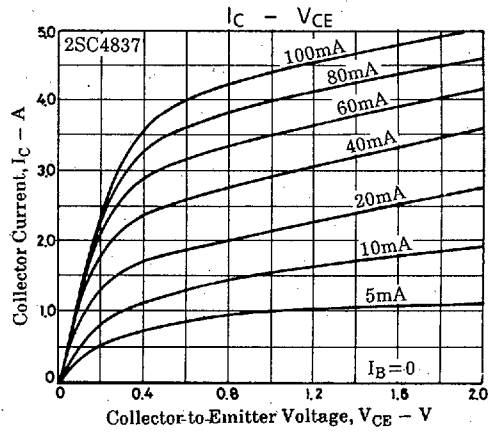
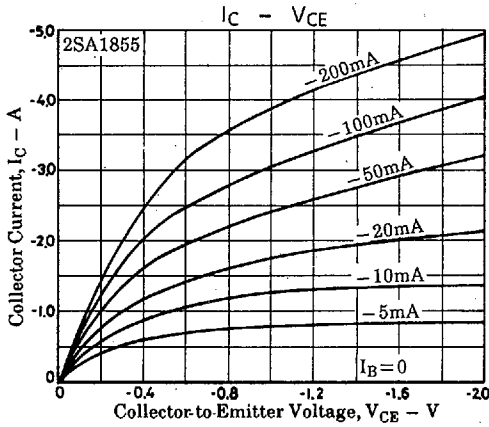
(unit:mm)

**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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			min	typ	max	unit
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)2A, I_B = (-)100mA$		(-350) (-700)		mV
				190	500	mV
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)2A, I_B = (-)100mA$		(-)0.94	(-)1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	(-)60			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	(-)50			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	(-)6			V
Turn ON Time	t_{on}	See specified Test Circuit.		70		ns
Storage Time	t_{stg}	"		(450)650		ns
Fall Time	t_f	"		(30)35		ns



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