

**2SC4836****20V/5A Switching Applications****Applications**

- Strobes, power supplies, relay drivers, lamp drivers.

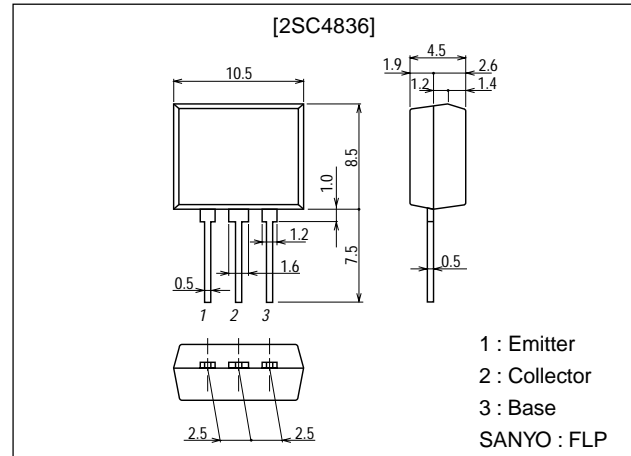
Features

- Large allowable collector dissipation.
- Low saturation voltage.
- Large current capacity.
- Fast switching speed.
- Usage of radial taping to meet automatic mounting.

Package Dimensions

unit:mm

2084B

**Specifications****Absolute Maximum Ratings at Ta = 25°C**

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		60	V
Collector-to-Emitter Voltage	V_{CE0}		20	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		5	A
Collector Current (Pulse)	I_{CP}		8	A
Collector Dissipation	P_C		1.5	W
Junction Temperature	T_J		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=50V, I_E=0$			100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5V, I_C=0$			100	nA
DC Current Gain	h_{FE1}	$V_{CE}=2V, I_C=500mA$	120*		560*	
	h_{FE2}	$V_{CE}=2V, I_C=3A$	95			
Gain-Bandwidth Product	f_T	$V_{CE}=10V, I_C=50mA$		120		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		45		pF

* : The 2SC4836 is classified by 500mA h_{FE} as follows :

120	E	200	160	F	320	280	G	560
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12099HA (KT)/5232MH, (KOTO) No.4134-1/4

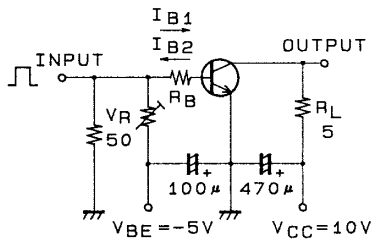
2SC4836

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=3A, I_B=60mA$		220	500	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=3A, I_B=60mA$			1.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	60			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	20			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6			V
Turn ON Time	t_{on}	See specified Test Circuit.		30		ns
Storage Time	t_{stg}	See specified Test Circuit.		300		ns
Fall Time	t_f	See specified Test Circuit.		40		ns

Switching Time Test Circuit

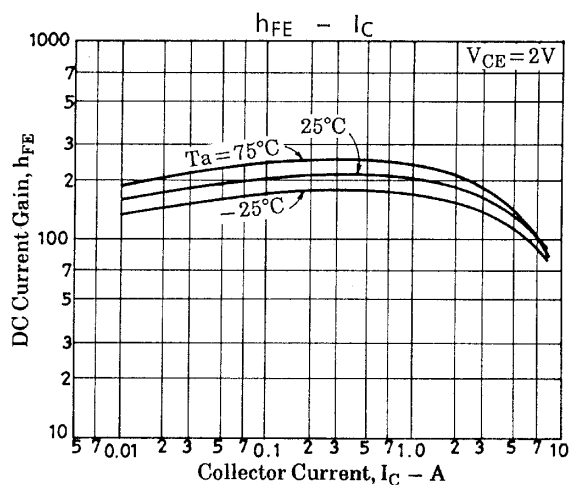
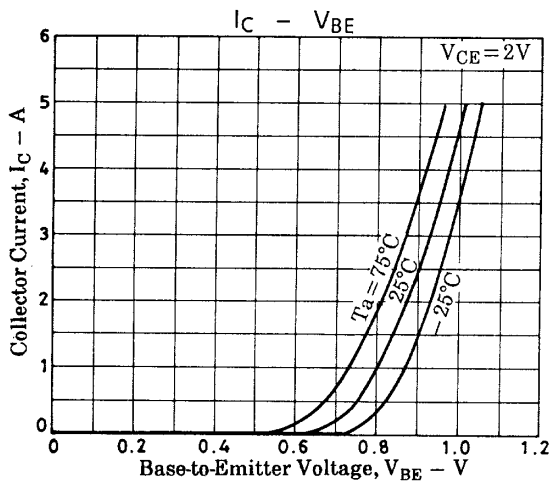
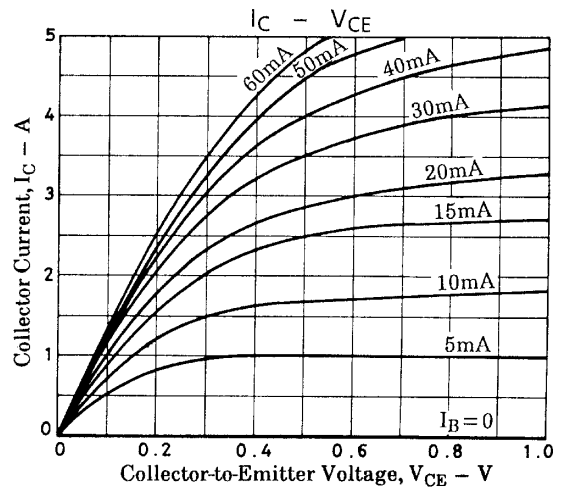
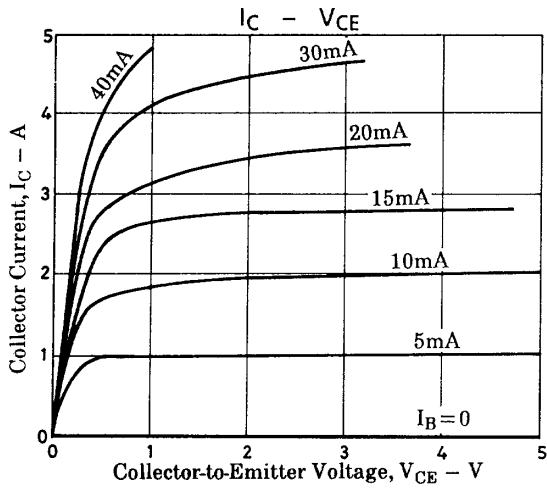
PW = 20 μ s

DC \leq 1%

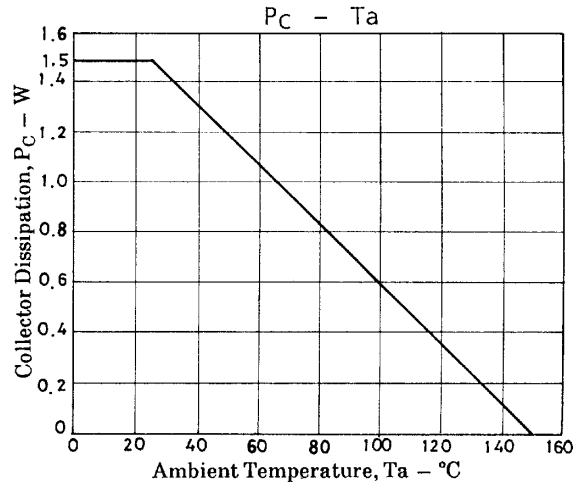
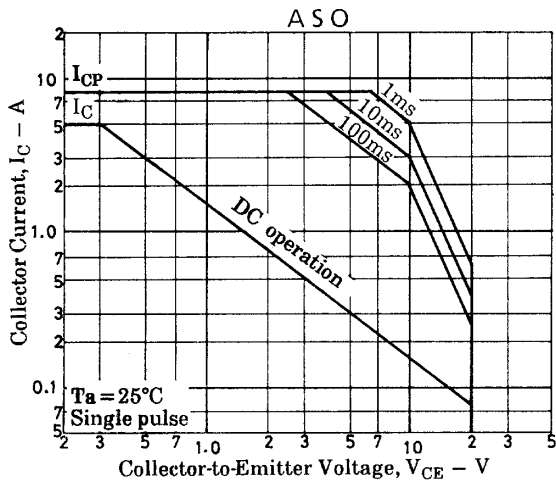
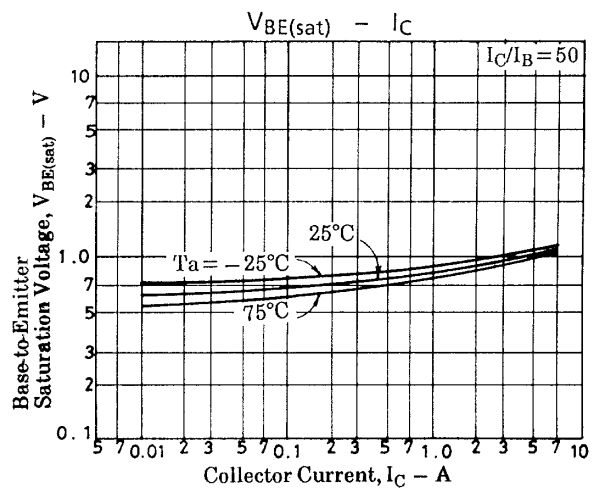
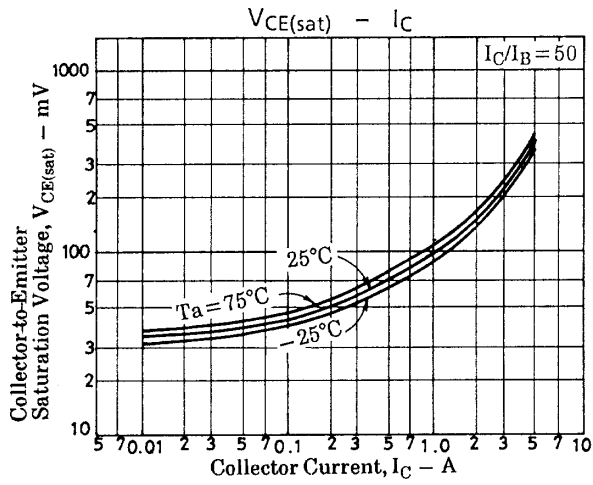
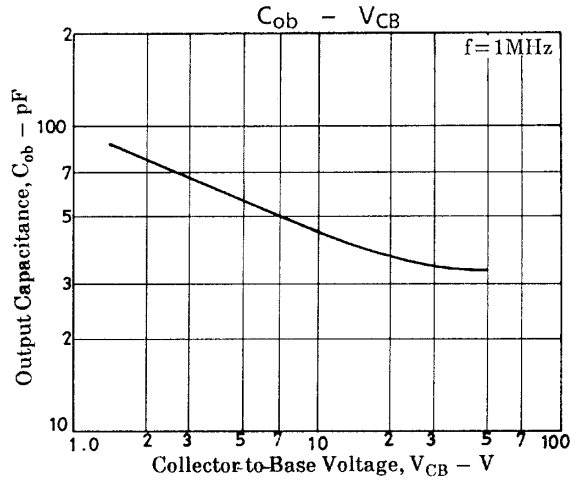
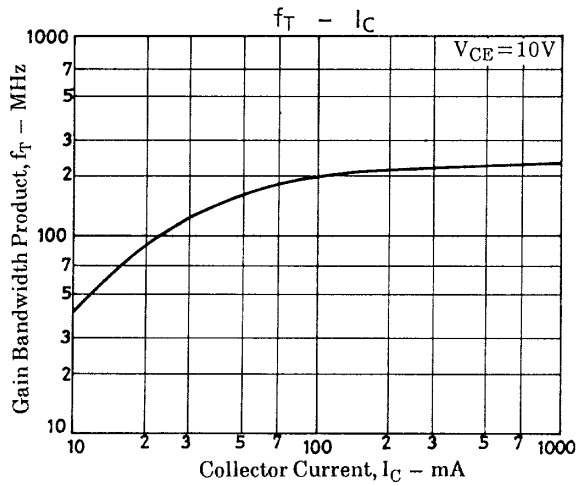


$$I_C = 10I_{B1} = -10I_{B2} = 2A \quad A00652$$

Unit (resistance : Ω , capacitance : F)



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