

SANYO	No.3176A	2SB1397/2SD2100
	PNP/NPN Epitaxial Planar Silicon Transistors Compact Motor Driver Applications	

Features

- Low saturation voltage.
- Contains diode between collector and emitter.
- Contains bias resistance between base and emitter.
- Large current capacity.
- Small-sized package making it easy to provide high-density, small-sized hybrid ICs.

() : 2SB1397

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector to Base Voltage	V _{CB0}	(-)25	V
Collector to Emitter Voltage	V _{CEO}	(-)20	V
Emitter to Base Voltage	V _{EBO}	(-)6	V
Collector Current	I _C	(-)2	A
Collector Current(Pulse)	I _{CP}	(-)4	A
Collector Dissipation	P _C	Mounted on ceramic board (250mm ² ×0.8mm)	1.3 W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	- 55 to + 150	°C

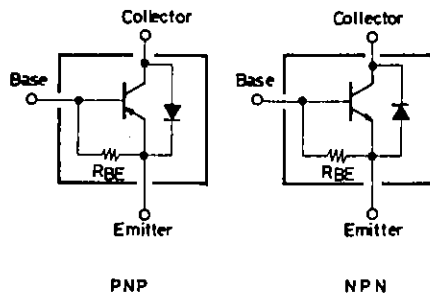
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} = (-)20V, I _E = 0			(-)1.0	μA
DC Current Gain	h _{FE} (1)	V _{CE} = (-)2V, I _C = (-)0.5A	(-)70			
	h _{FE} (2)	V _{CE} = (-)2V, I _C = (-)2A	(-)50			
Gain Bandwidth Product	f _T	V _{CE} = (-)2V, I _C = (-)0.5A		(300)200		MHz
Output Capacitance	C _{ob}	V _{CB} = (-)10V, f = 1MHz		(40)25		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C = (-)1A, I _B = (-)50mA		(-)0.25	(-)0.5	V
B-E Saturation Voltage	V _{BE(sat)}	I _C = (-)1A, I _B = (-)50mA			(-)1.5	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = (-)10μA, I _E = 0	(-)25			V
C-E Breakdown Voltage	V _{(BR)CEO(1)}	I _C = (-)10μA, R _{BE} = ∞	(-)25			V
	V _{(BR)CEO(2)}	I _C = (-)10mA, R _{BE} = ∞	(-)20			V
Diode Forward Voltage	V _F	I _F = 0.5A			(-)1.5	V
Base to Emitter Resistance	R _{BE}			1.6		kΩ

Marking 2SB1397 : BP

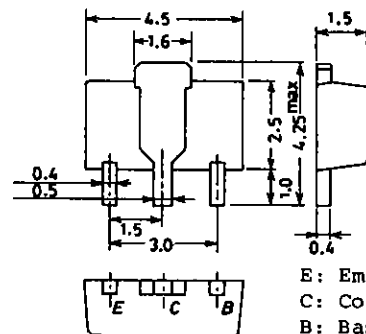
2SD2100 : DP

Electrical Connection



Package Dimensions 2038

(unit : mm)



(Bottom View)

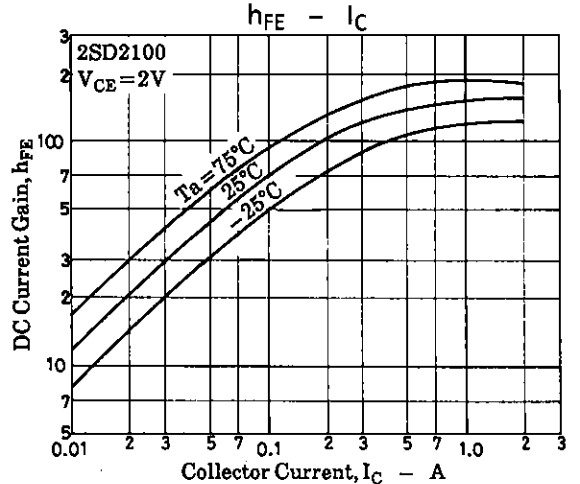
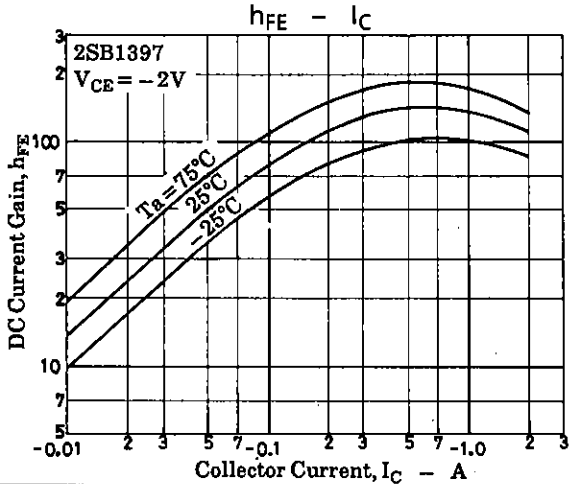
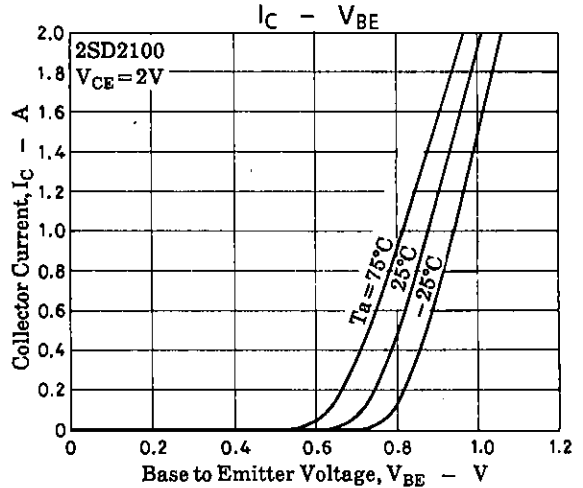
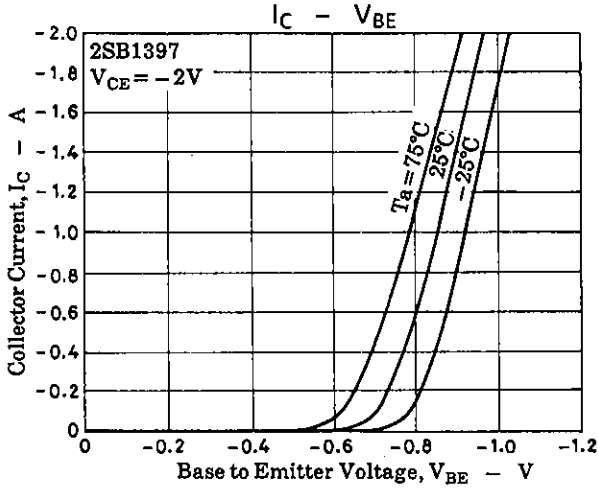
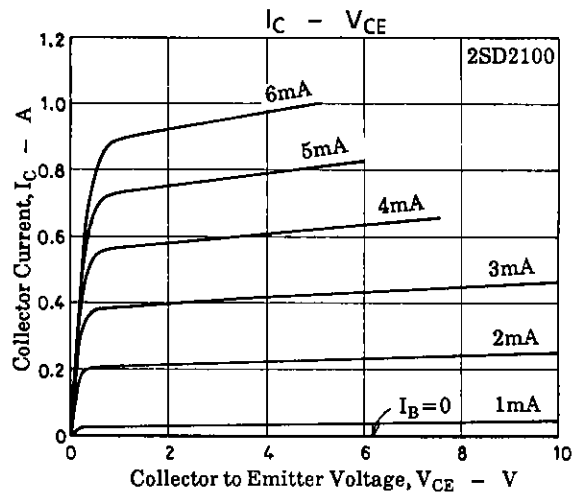
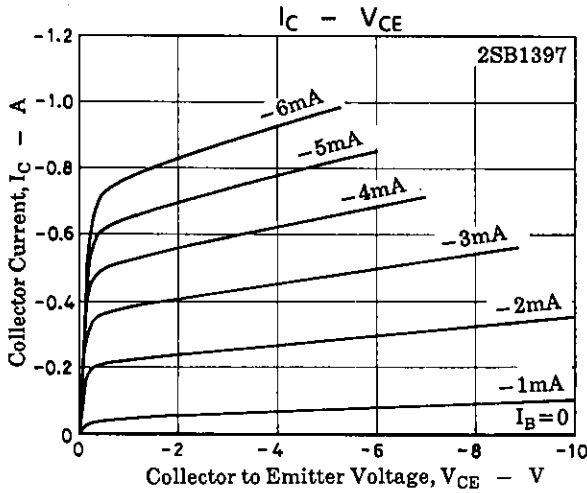
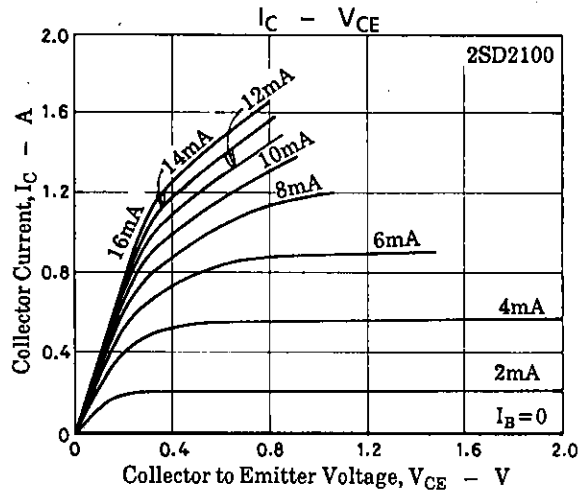
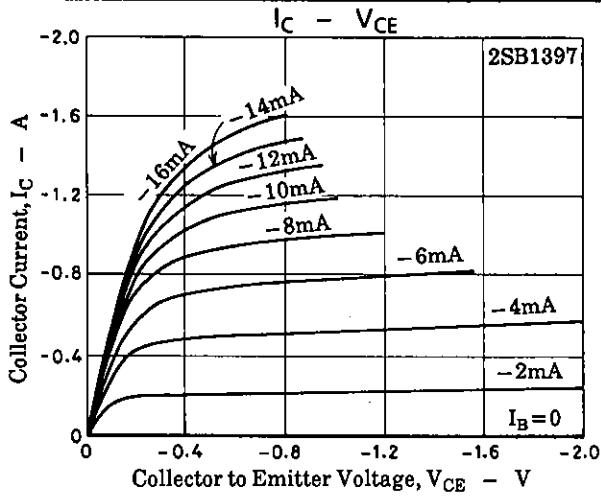
E: Emitter
C: Collector
B: Base

SANYO: PCP

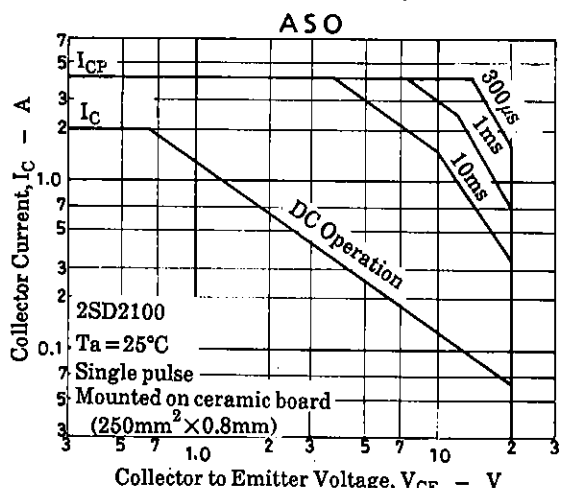
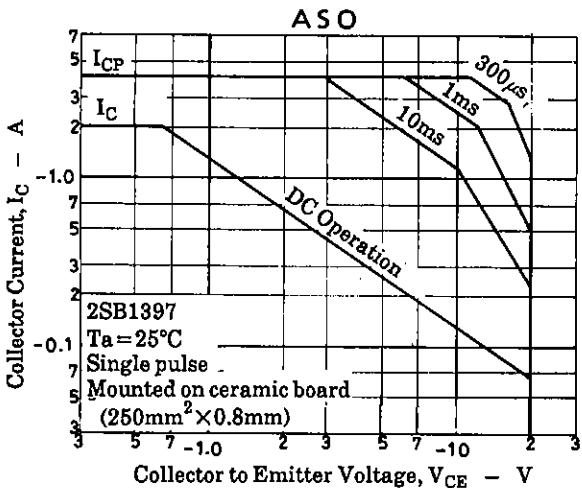
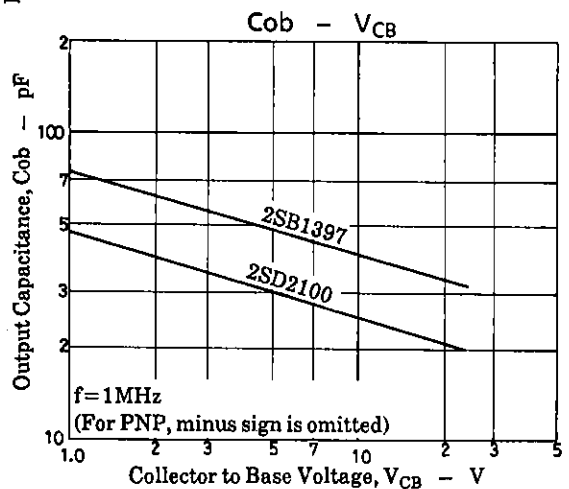
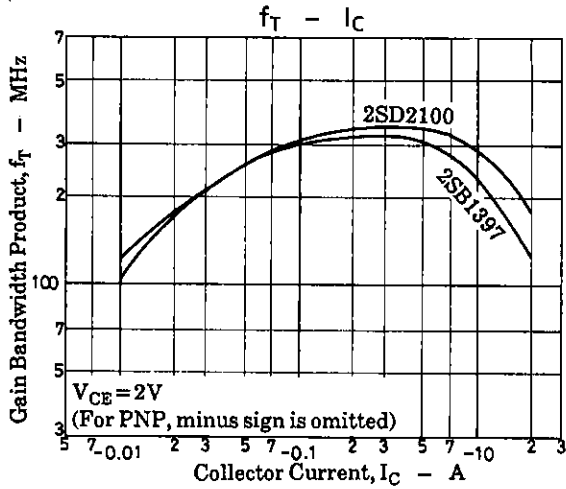
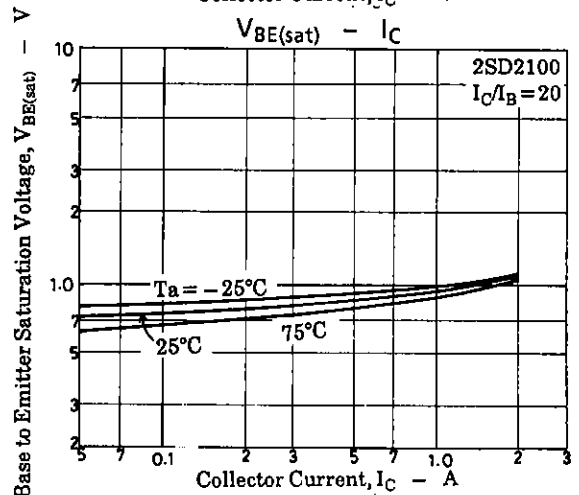
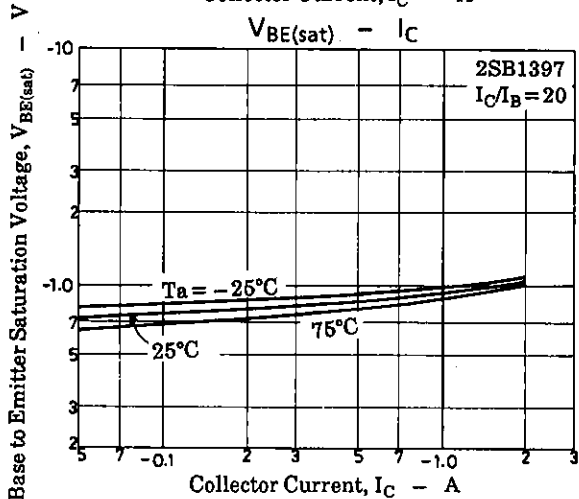
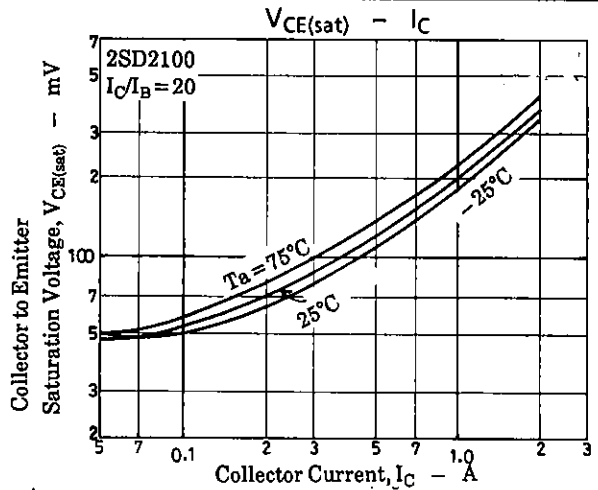
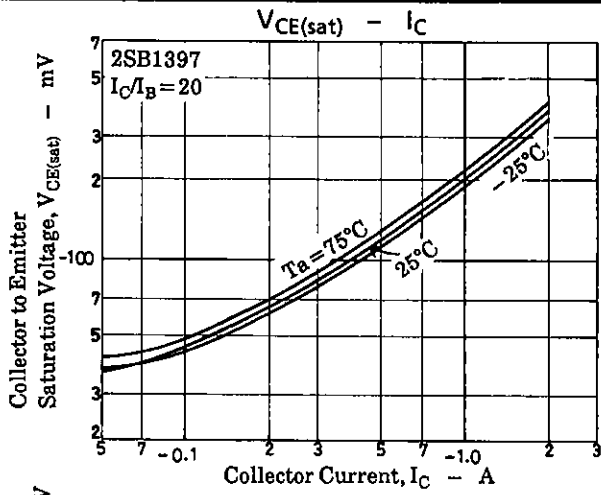
SANYO Electric Co., Ltd. Semiconductor Business Headquarters

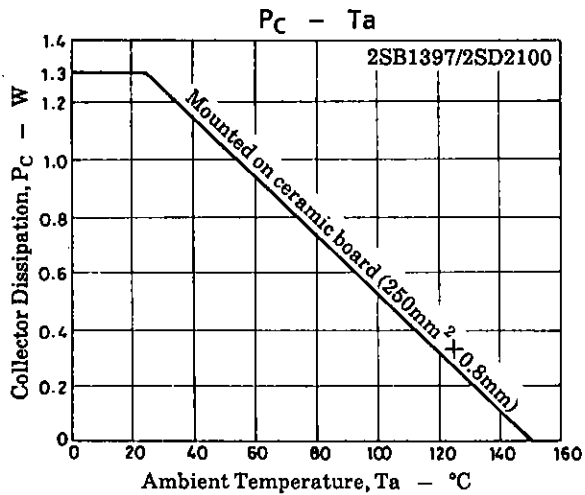
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

2SB1397/2SD2100



2SB1397/2SD2100





- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.