

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.

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

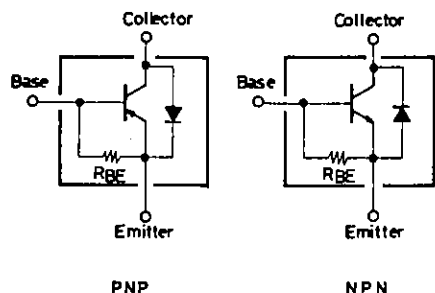
			unit
Collector to Base Voltage	V_{CB0}	(-)25	V
Collector to Emitter Voltage	V_{CE0}	(-)20	V
Emitter to Base Voltage	V_{EB0}	(-)6	V
Collector Current	I_C	(-)2	A
Collector Current(Pulse)	I_{CP}	(-)4	A
Collector Dissipation	P_C	Mounted on ceramic board (250mm ² ×0.8mm)	1.3 W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	- 55 to + 150	°C

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

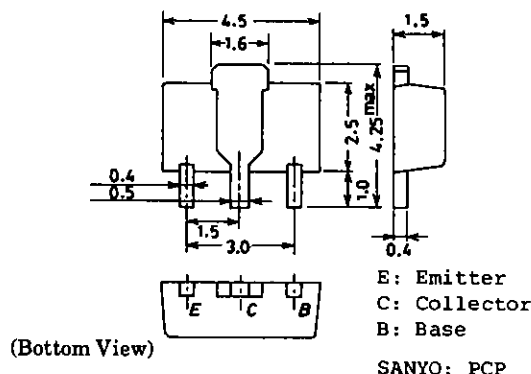
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)20V, I_E = 0$			(-)1.0	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = (-)2V, I_C = (-)0.5A$	(-)70			
	$h_{FE(2)}$	$V_{CE} = (-)2V, I_C = (-)2A$	(-)50			
Gain Bandwidth Product	f_T	$V_{CE} = (-)2V, I_C = (-)0.5A$		(300)200		MHz
Output Capacitance	C_{ob}	$V_{CB} = (-)10V, f = 1\text{MHz}$		(40)25		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)1A, I_B = (-)50\text{mA}$		(-)0.25	(-)0.5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)1A, I_B = (-)50\text{mA}$			(-)1.5	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu\text{A}, I_E = 0$	(-)25			V
C-E Breakdown Voltage	$V_{(BR)CEO(1)}$	$I_C = (-)10\mu\text{A}, R_{BE} = \infty$	(-)25			V
	$V_{(BR)CEO(2)}$	$I_C = (-)10\text{mA}, R_{BE} = \infty$	(-)20			V
Diode Forward Voltage	V_F	$I_F = 0.5A$			(-)1.5	V
Base to Emitter Resistance	R_{BE}			1.6		k Ω

Marking 2SB1397 : BP
2SD2100 : DP

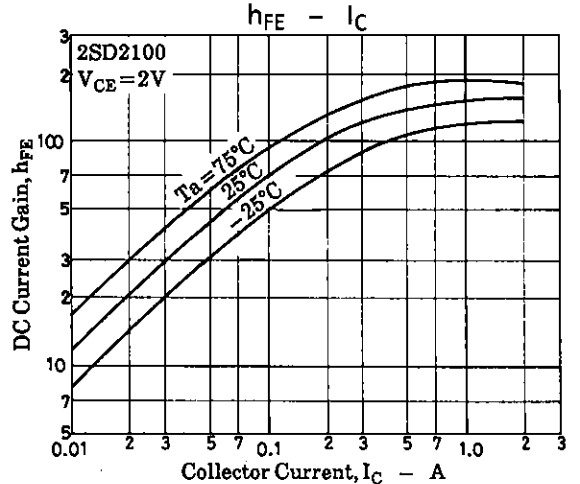
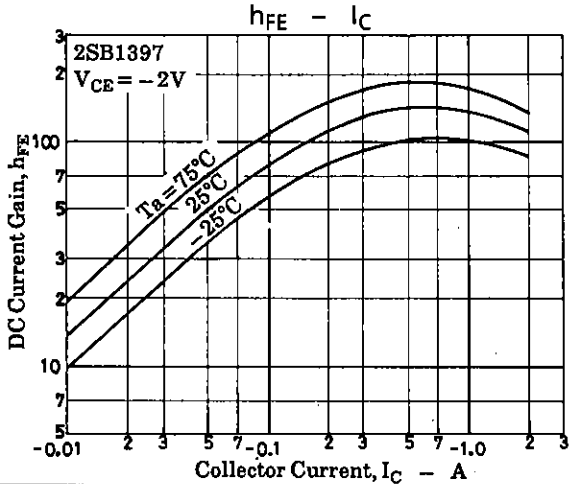
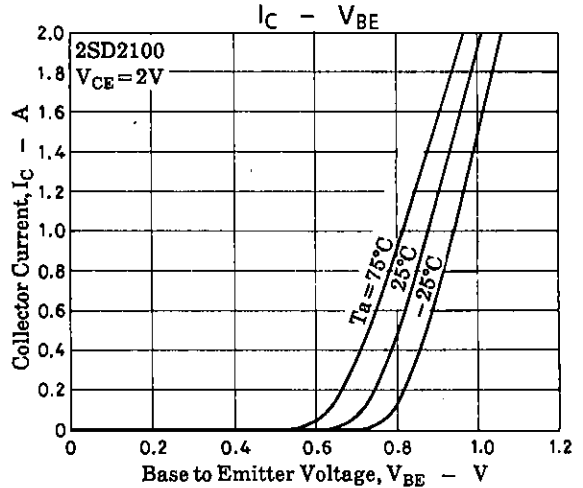
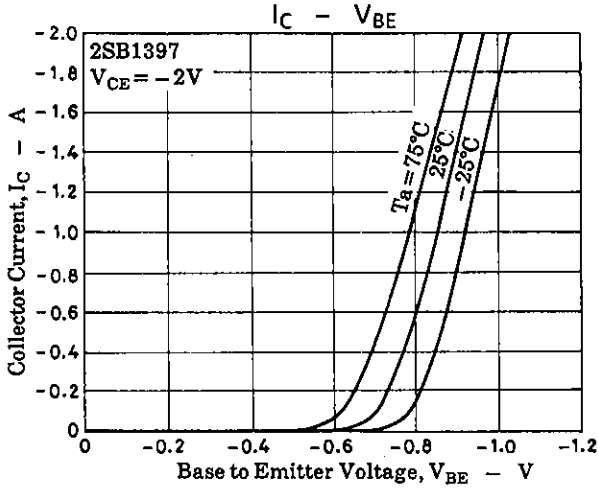
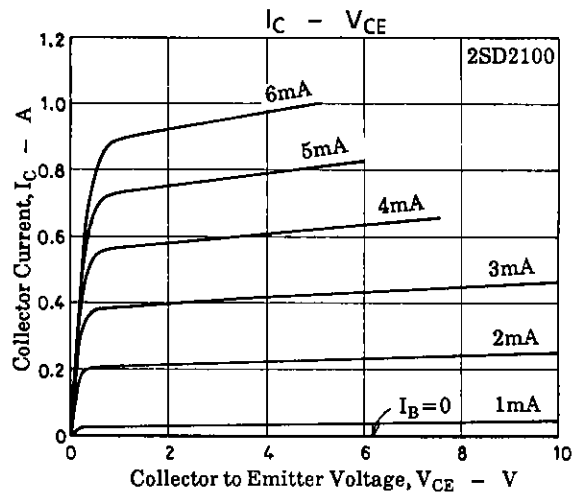
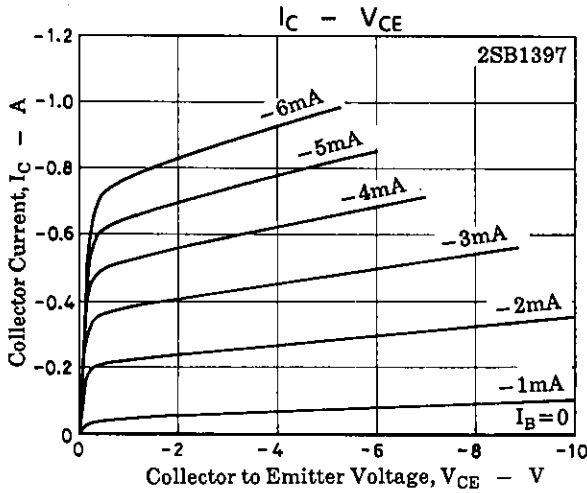
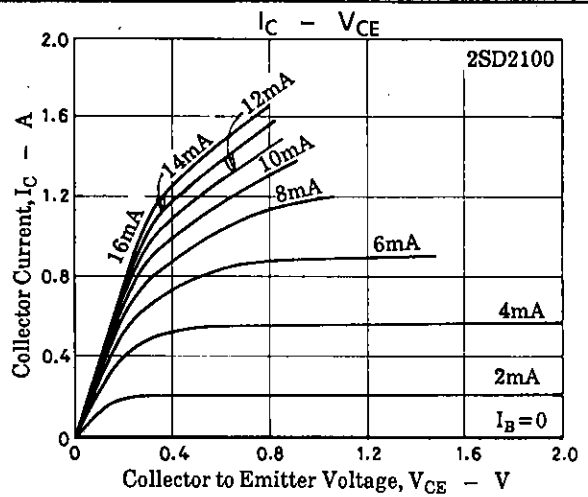
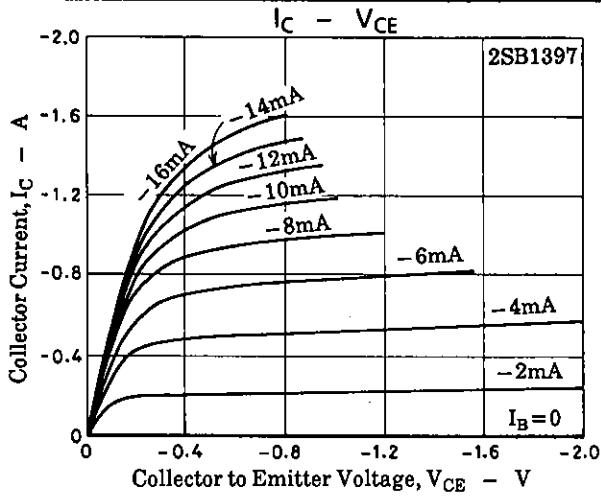
Electrical Connection



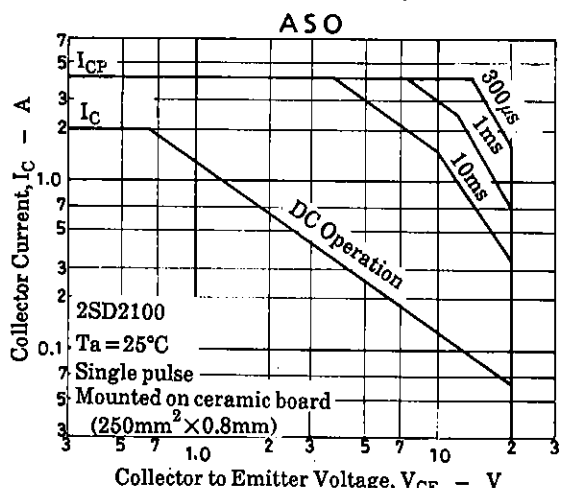
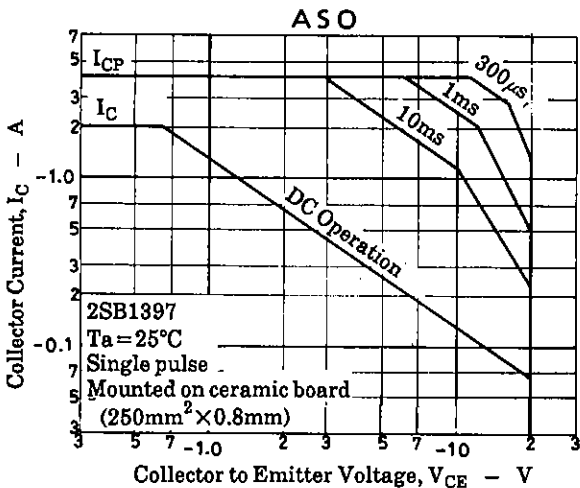
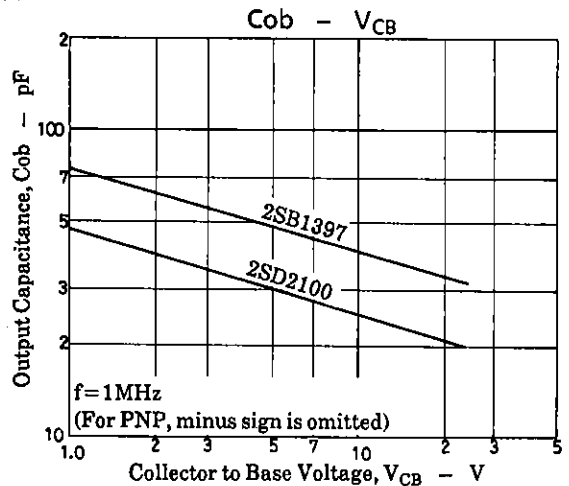
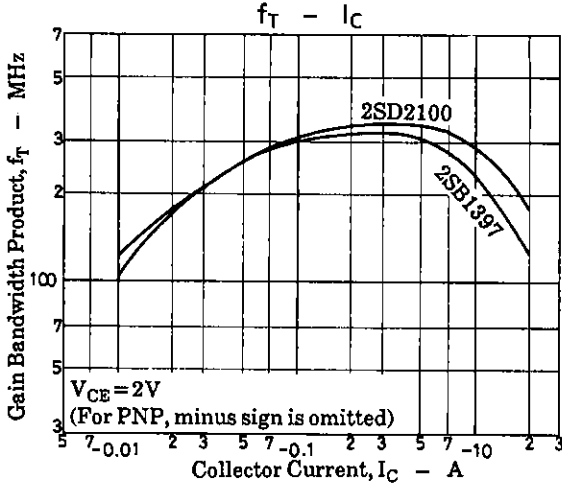
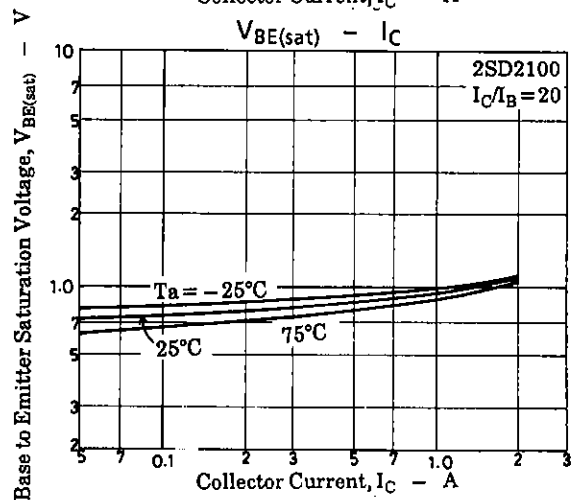
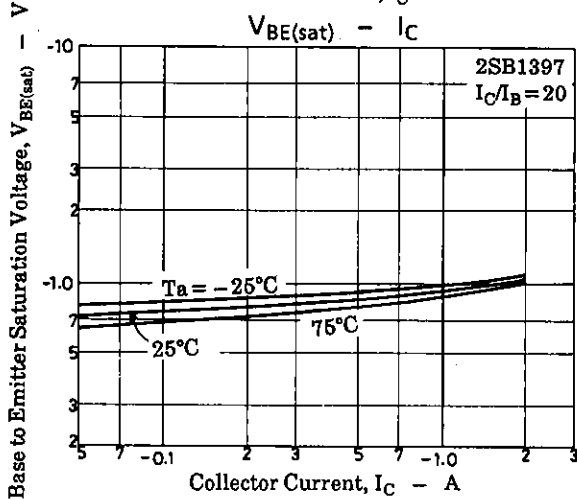
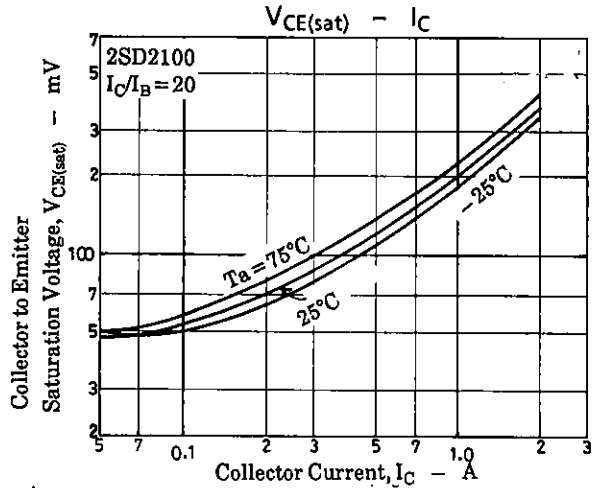
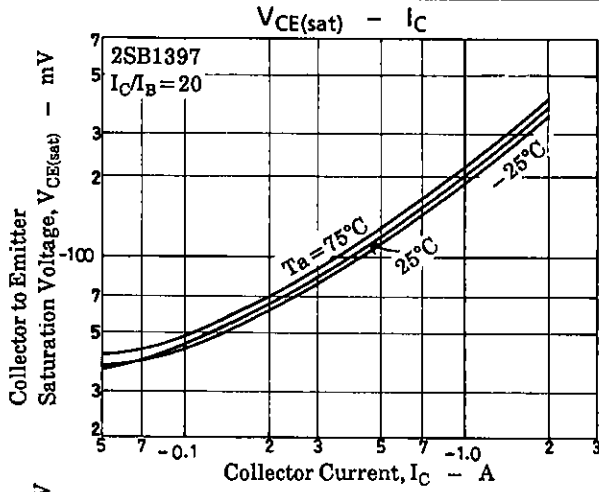
Package Dimensions 2038
(unit : mm)

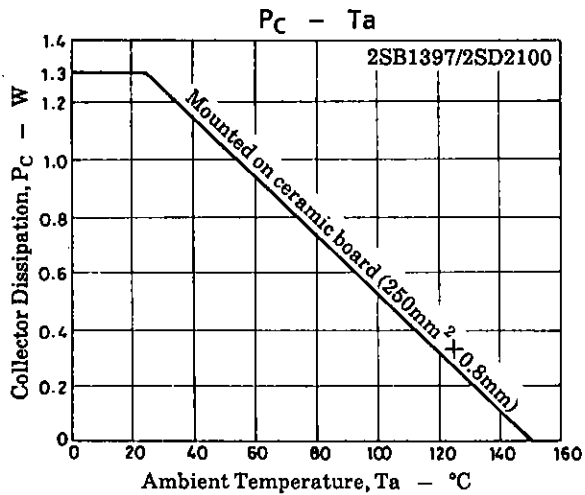


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