

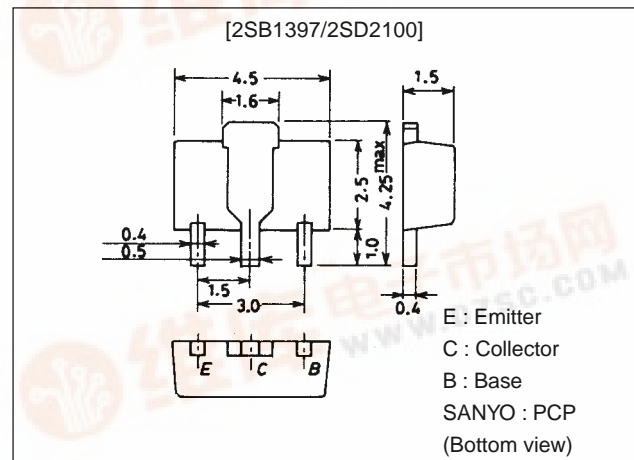
SANYO**2SB1397/2SD2100****Compact Motor Driver Applications****Features**

- 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.

Package Dimensions

unit:mm

2038



() : 2SB1397

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

Parameter	Symbol	Conditions	Ratings	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 Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CB0}	V _{CB} =(-)20V, I _E =0			(-)1.0	μA
DC Current Gain	h _{FE1}	V _{CE} =(-)2V, I _C =(-)0.5A	(-)70			
	h _{FE2}	V _{CE} =(-)2V, I _C =(-)2A	(-)50			
Gain-Bandwidth Product	f _T	V _{CE} =(-)2V, I _C =(-)0.5A		(300)		MHz
				200		MHz
Output Capacitance	C _{ob}	V _{CB} =(-)10V, f=1MHz		(40)25		pF

Marking : 2SB1397 : BP
2SD2100 : DP

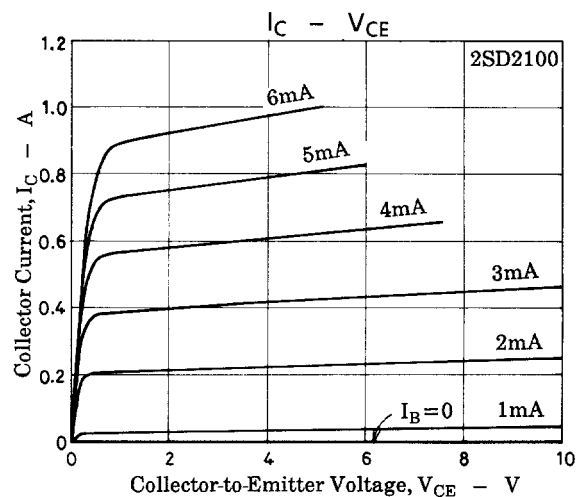
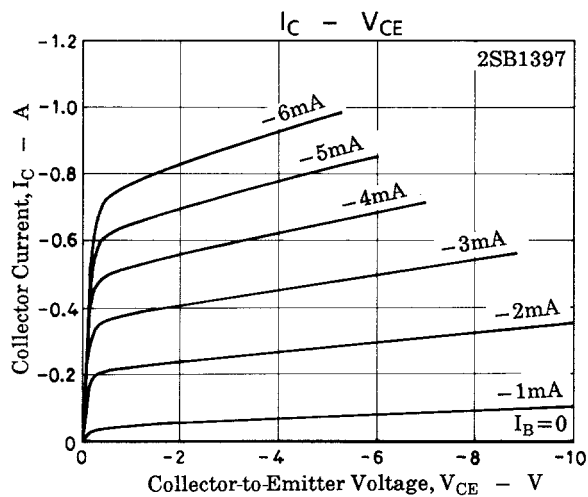
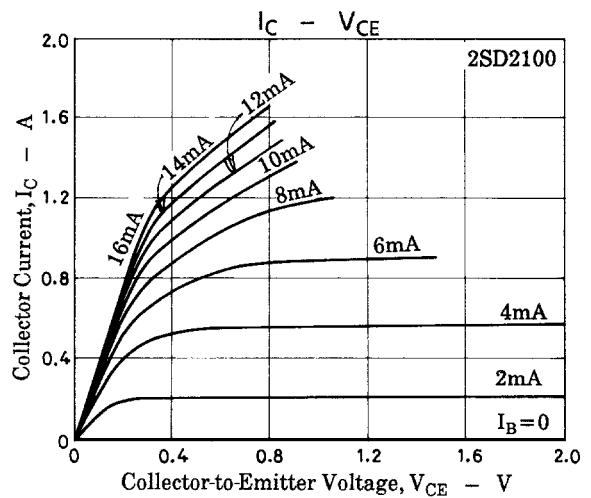
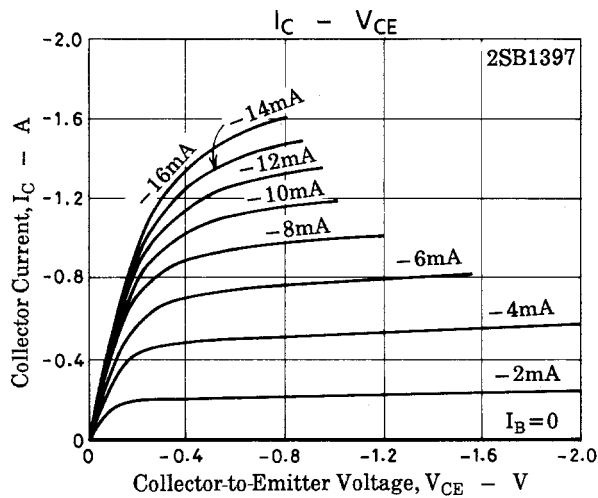
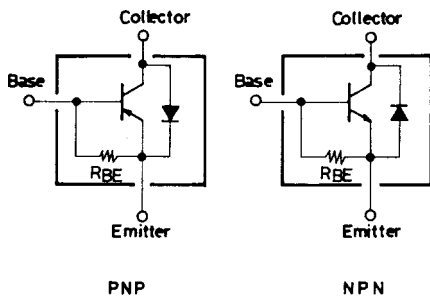
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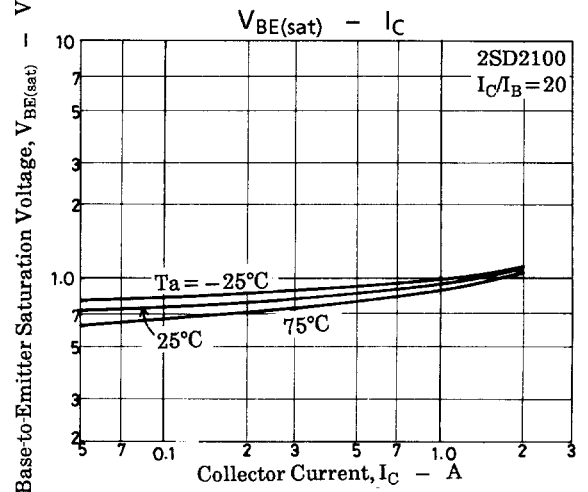
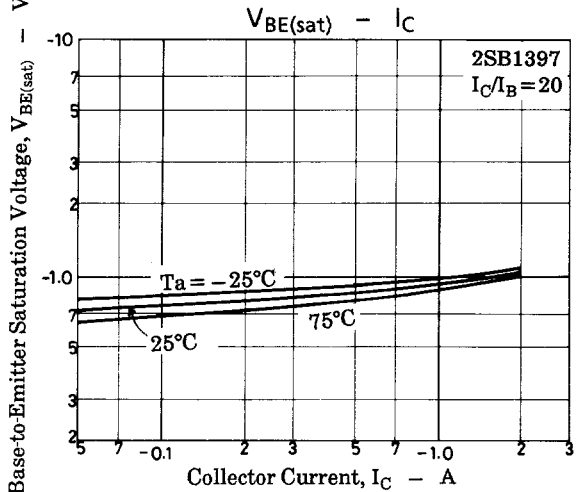
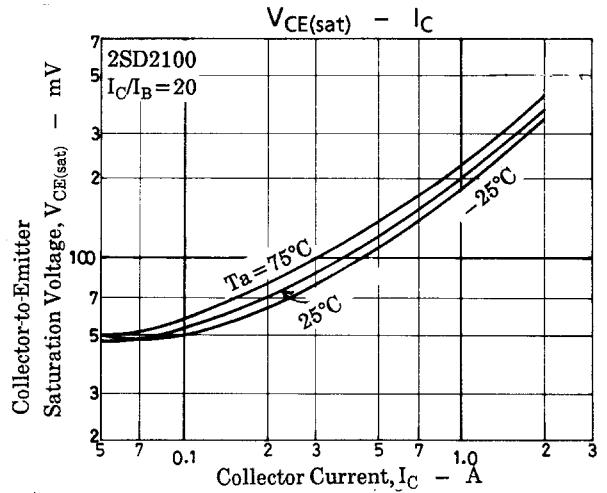
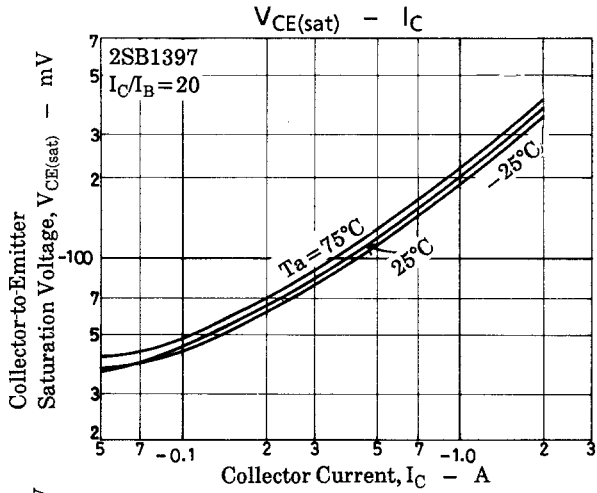
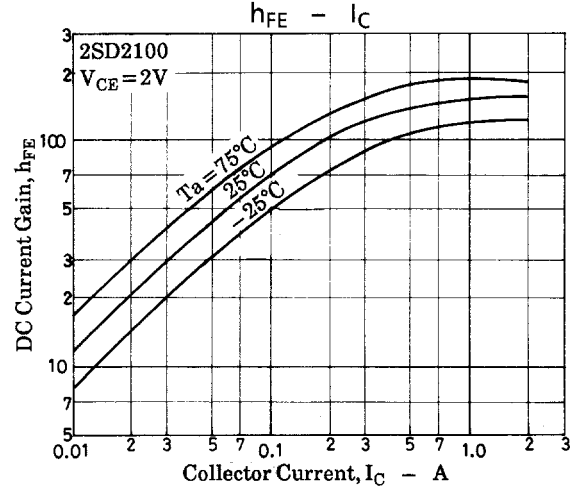
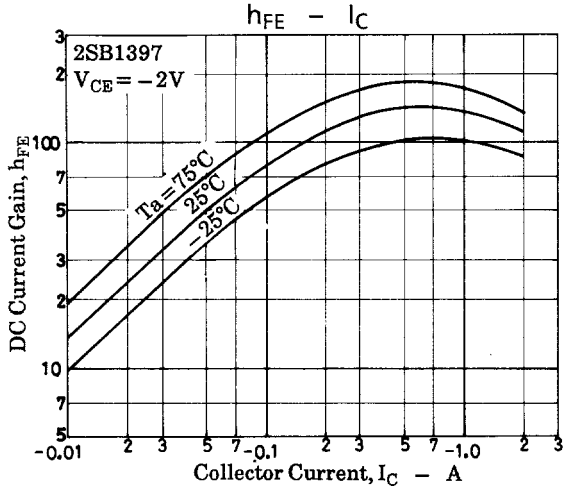
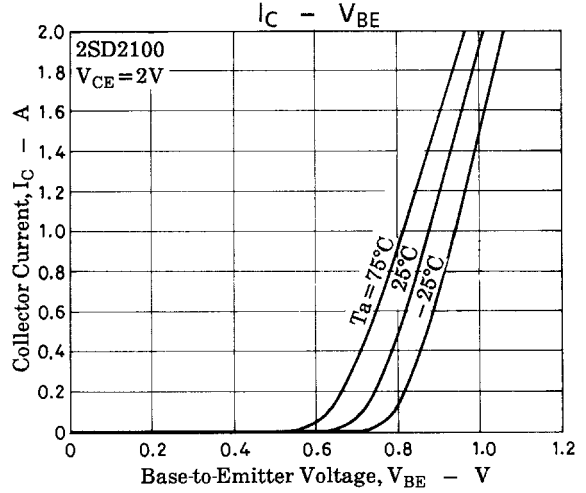
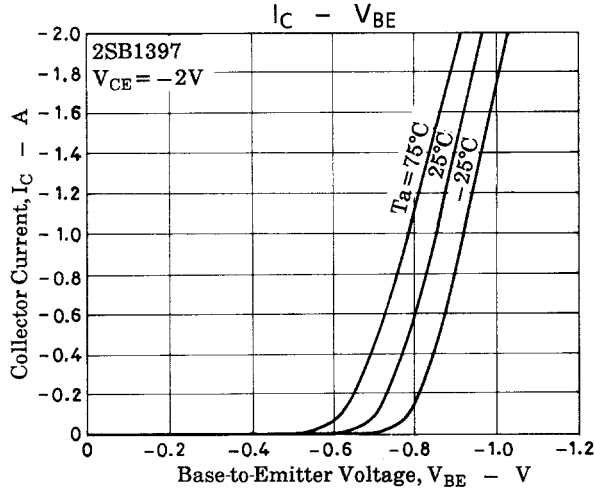
2SB1397/2SD2100

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)1A, I_B=(-)50mA$		(-)0.25	(-)0.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)1A, I_B=(-)50mA$			(-)1.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(-)25			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO1}$	$I_C=(-)10\mu A, R_{BE}=\infty$	(-)25			V
	$V_{(BR)CEO2}$	$I_C=(-)10mA, R_{BE}=\infty$	(-)20			V
Diode Forward Voltage	V_F	$I_F=0.5A$			(-)1.5	k Ω
Base-to-Emitter Resistance	R_{BE}			1.6		

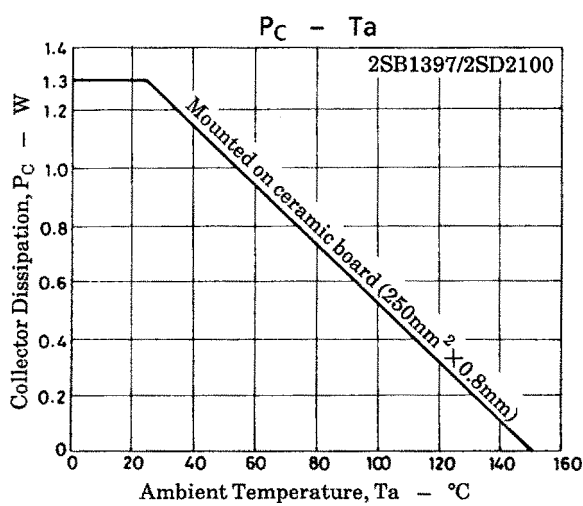
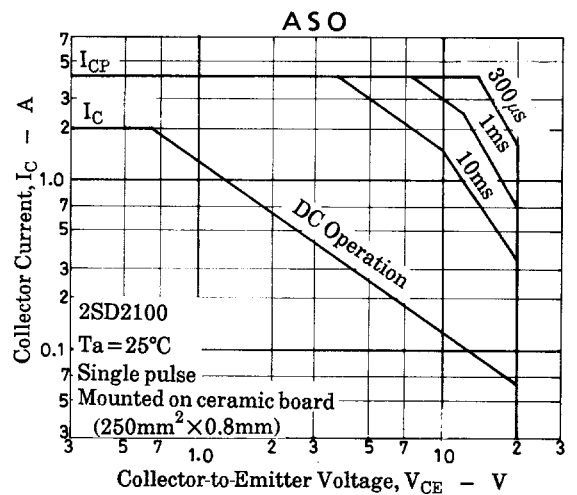
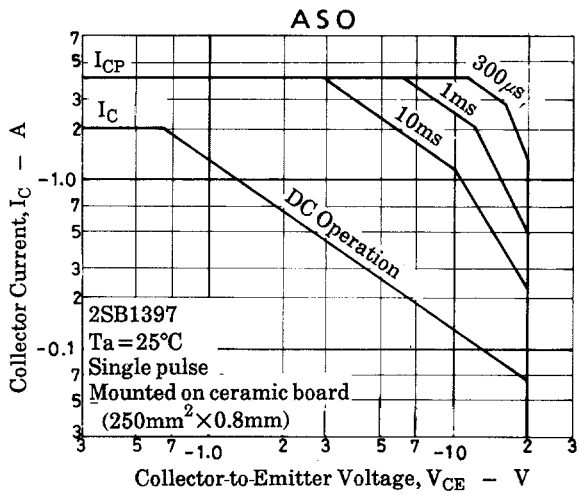
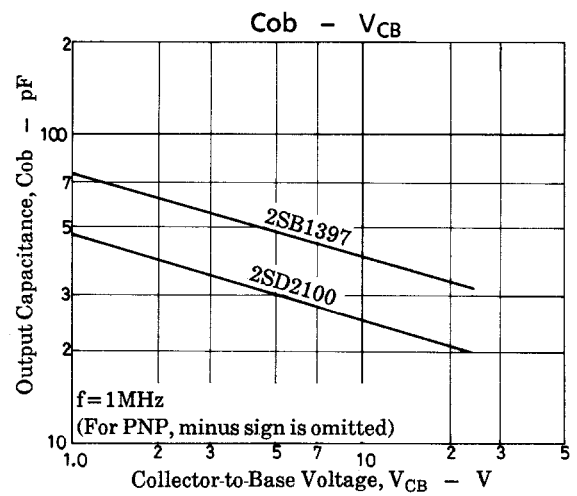
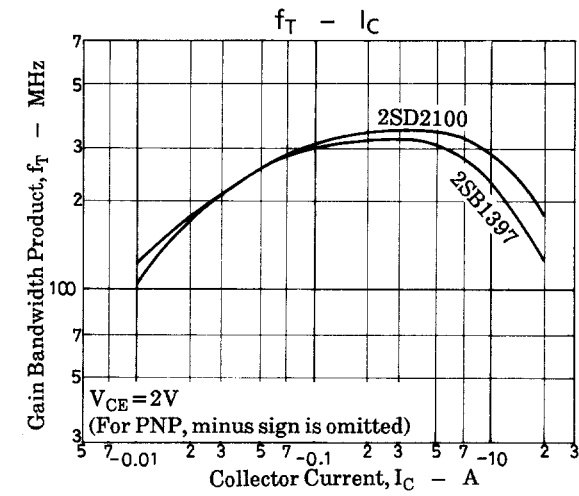
Electrical Connection



2SB1397/2SD2100



2SB1397/2SD2100



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