

No.1034B

2SB913/2SD1230

PNP/NPN Planar Silicon Darlington Transistors

Driver Applications

Applications

- Motor drivers, printer hammer drivers, relay drivers, voltage regulator control.

Features

- High DC current gain.
- High current capacity and wide ASO.
- Low saturation voltage.

() : 2SB913

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector-to-Base Voltage	V _{CB0}	(-)110	V
Collector-to-Emitter Voltage	V _{CE0}	(-)100	V
Emitter-to-Base Voltage	V _{EB0}	(-)6	V
Collector Current	I _C	(-)8	A
Collector Current (Pulse)	I _{CP}	(-)12	A
Collector Dissipation	P _C	2.5	W
		60	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

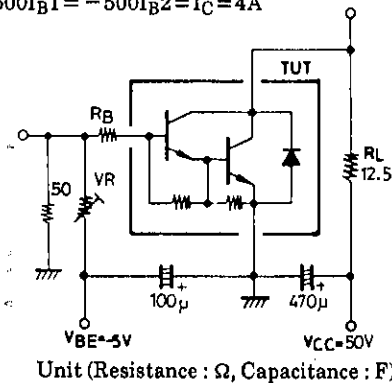
T_c = 25°C

Electrical Characteristics at Ta = 25°C

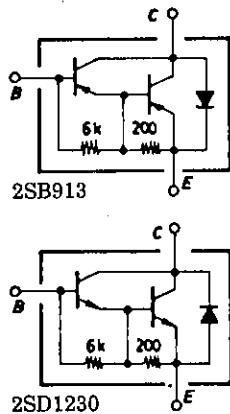
			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} = (-)80V, I _E = 0			(-)0.1	mA
Emitter Cutoff Current	I _{EB0}	V _{EB} = (-)5V, I _C = 0			(-)3	mA
DC Current Gain	h _{FE}	V _{CE} = (-)3V, I _C = (-)4A	1500	4000		
Gain Bandwidth Product	f _T	V _{CE} = (-)5V, I _C = (-)4A		20		MHz
C-E Saturation Voltage	V _{CE(sat)}	I _C = (-)4A, I _B = (-)8mA		0.9(-1.5)		V
				(-1.0)		
B-E Saturation Voltage	V _{BE(sat)}	I _C = (-)4A, I _B = (-)8mA			(-)2.0	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = (-)5mA, I _E = 0	(-)110			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = (-)50mA, R _{BE} = ∞	(-)100			V
Rise Time	t _{on}	See specified Test Circuit.	(0.7)0.6			μs
Storage Time	t _{stg}	"	(1.4)4.8			μs
Fall Time	t _f	"	(1.5)1.6			μs

Specified Test Circuit

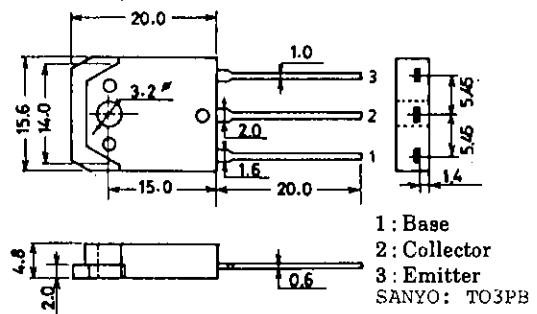
(For PNP, the polarity is reversed.)
 PW = 50μs, Duty Cycle ≤ 1%
 500I_{B1} = -500I_{B2} = I_C = 4A



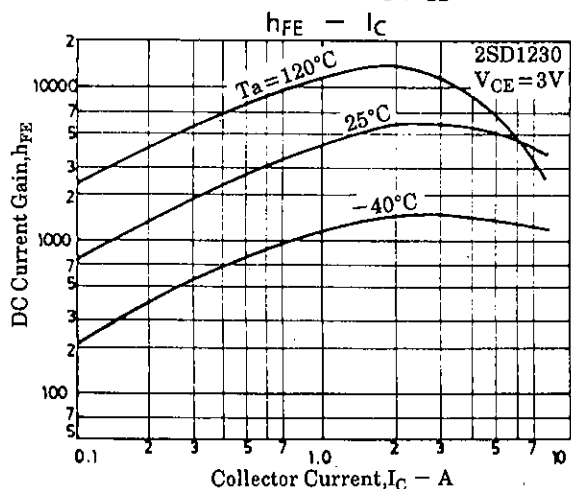
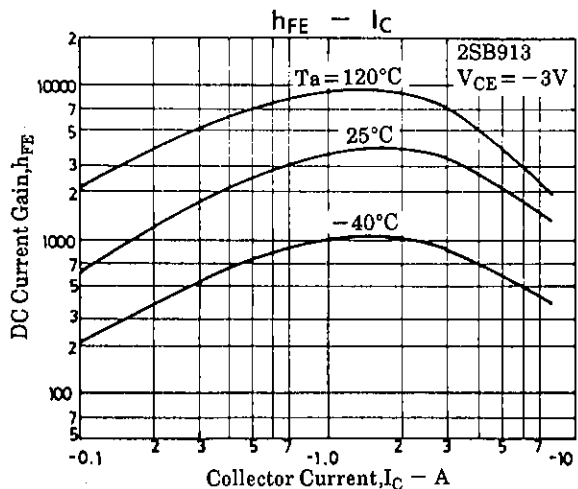
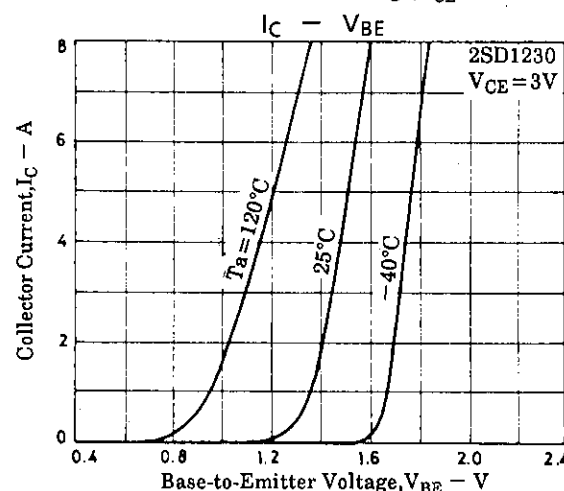
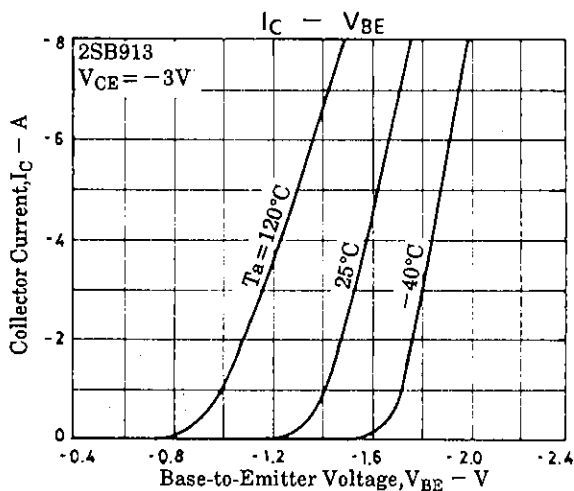
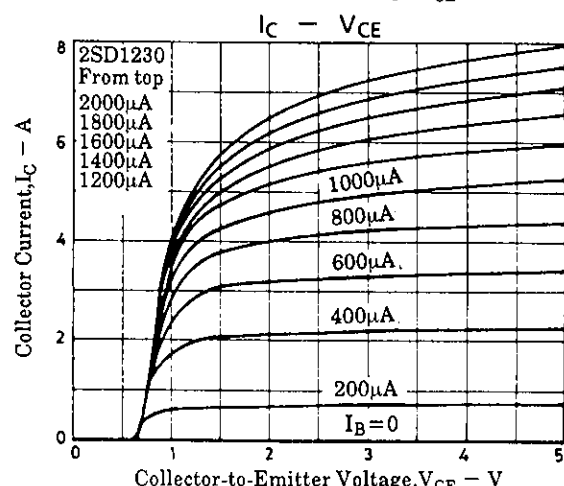
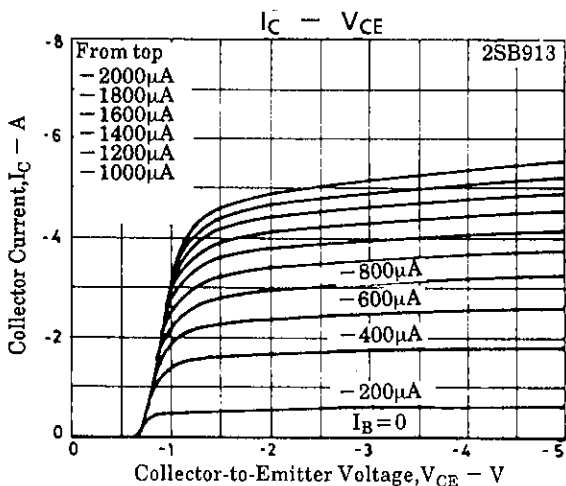
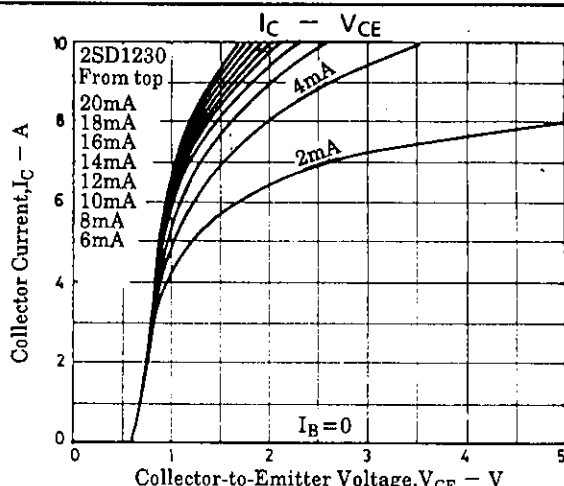
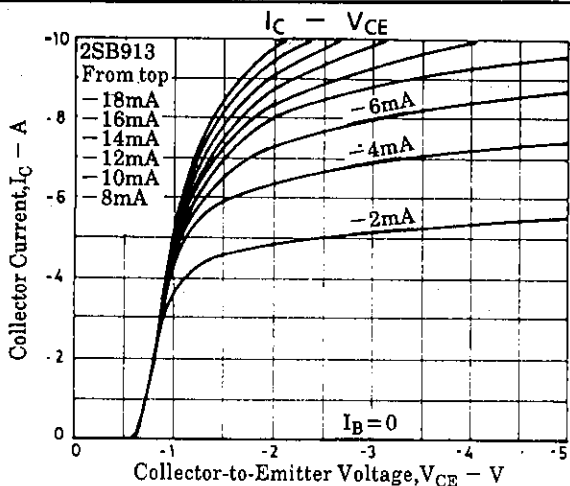
Electrical Connection



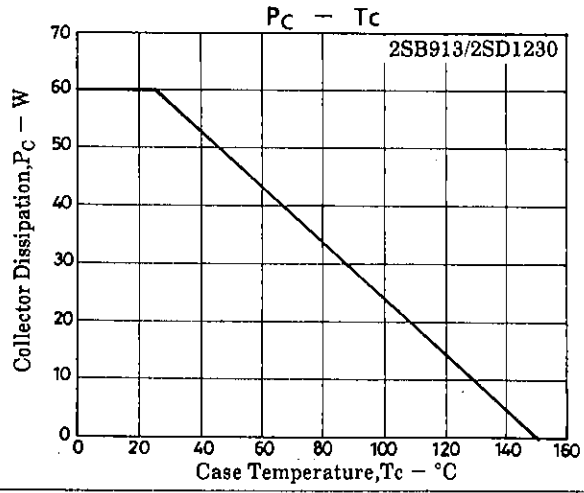
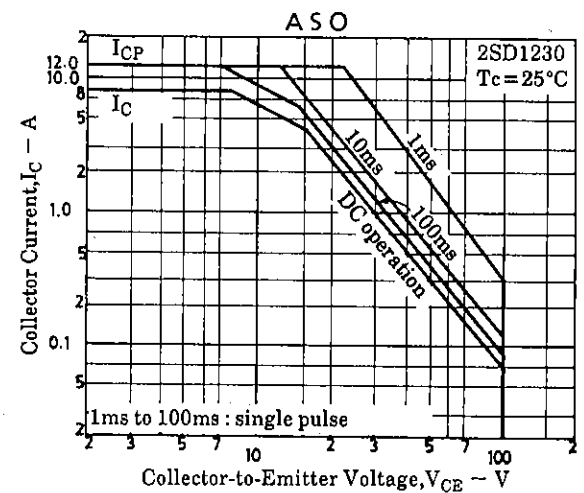
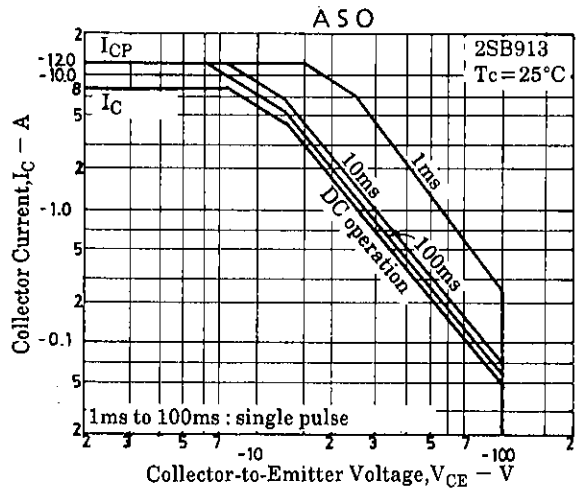
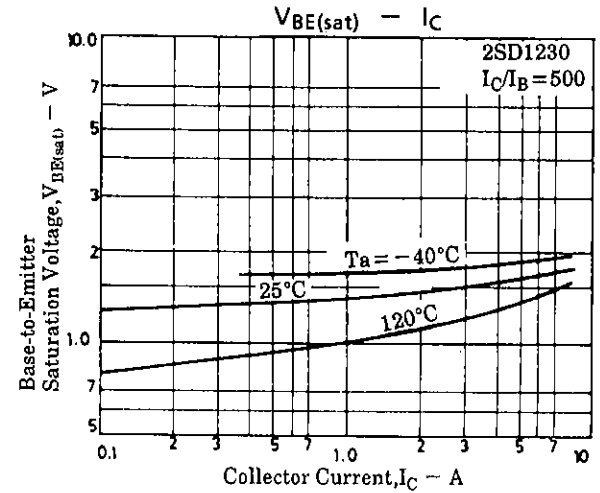
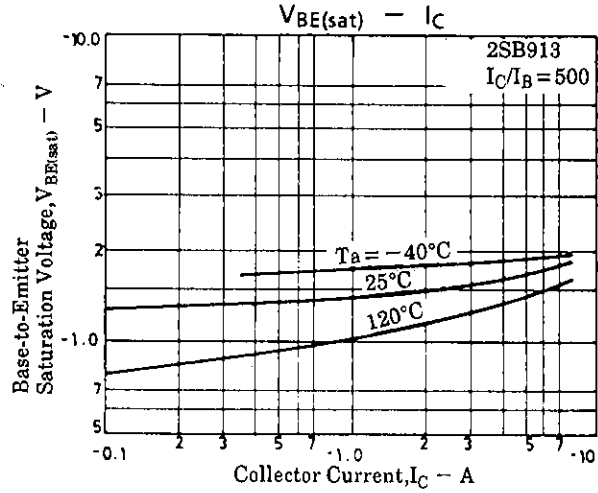
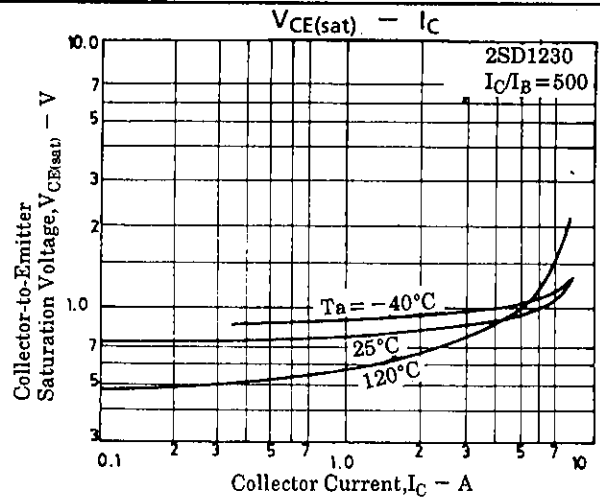
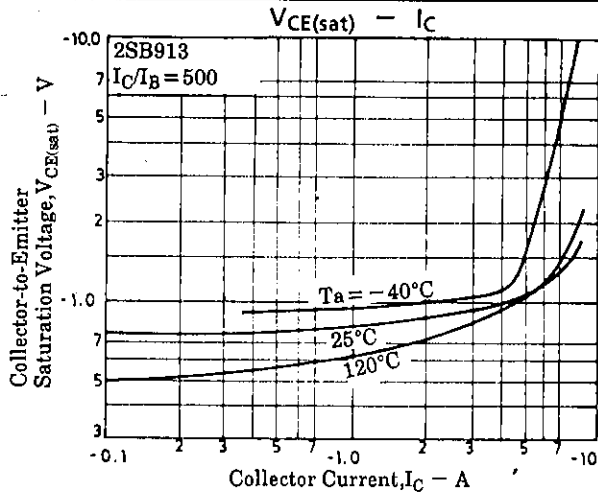
Package Dimensions 2022A
(unit : mm)



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