

SANYO	No.1028B	2SB912/2SD1229
	PNP/NPN Epitaxial 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.

(): 2SB912

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector-to-Base Voltage	V _{CB0}	(-)70	V
Collector-to-Emitter Voltage	V _{CEO}	(-)60	V
Emitter-to-Base Voltage	V _{EB0}	(-)6	V
Collector Current	I _C	(-)10	A
Collector Current (Pulse)	I _{CP}	(-)15	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

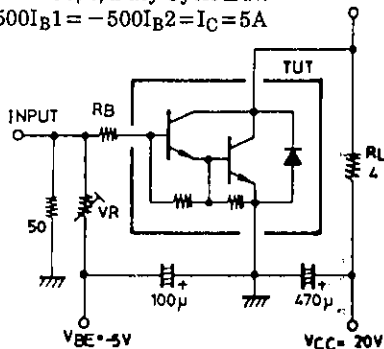
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} = (-)40V, I _E = 0			(-)0.1	mA
Emitter Cutoff Current	I _{EB0}	V _{EB} = (-)5V, I _C = 0			(-)3.0	mA
DC Current Gain	h _{FE}	V _{CE} = (-)2V, I _C = (-)5A	2000	5000		
Gain Bandwidth Product	f _T	V _{CE} = (-)5V, I _C = (-)5A		20		MHz
C-E Saturation Voltage	V _{CE(sat)}	I _C = (-)5A, I _B = (-)10mA		0.9	(-)1.5	V
					(-1.0)	
B-E Saturation Voltage	V _{BE(sat)}	I _C = (-)5A, I _B = (-)10mA			(-)2.0	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = (-)5mA, I _E = 0	(-)70			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = (-)50mA, R _{BE} = ∞	(-)60			V
Rise Time	t _{on}	See specified Test Circuit.	(0.5)0.6			μs
Storage Time	t _{stg}	"	(1.5)3.0			μs
Fall Time	t _f	"	(1.7)1.8			μs

Specified Test Circuit

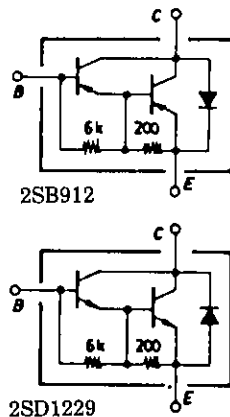
(For PNP, the polarity is reversed.)

PW = 50μs, Duty Cycle ≤ 1%
500I_{B1} = -500I_{B2} = I_C = 5A

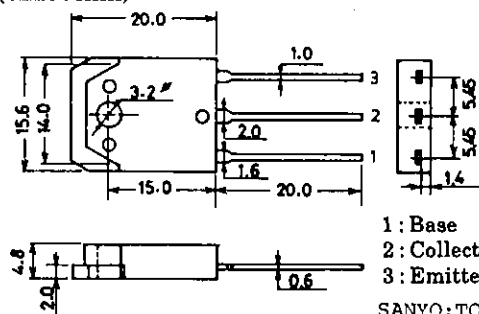


Unit (Resistance : Ω, Capacitance : F)

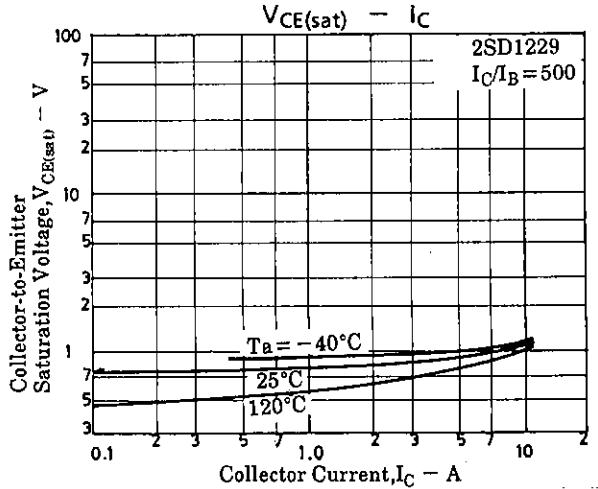
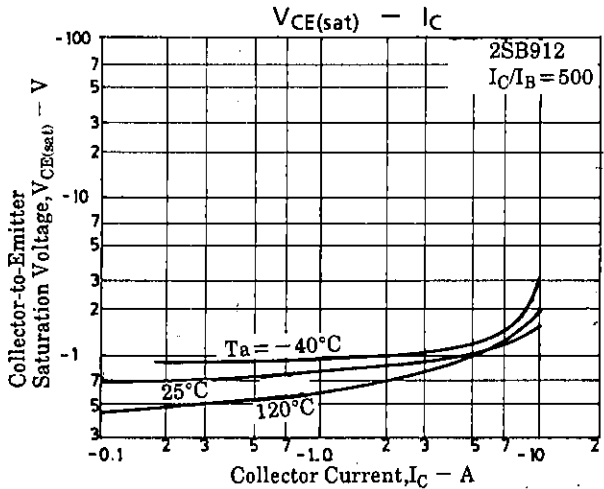
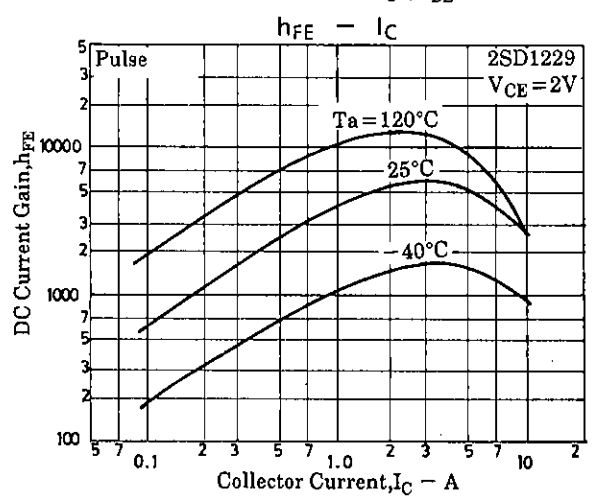
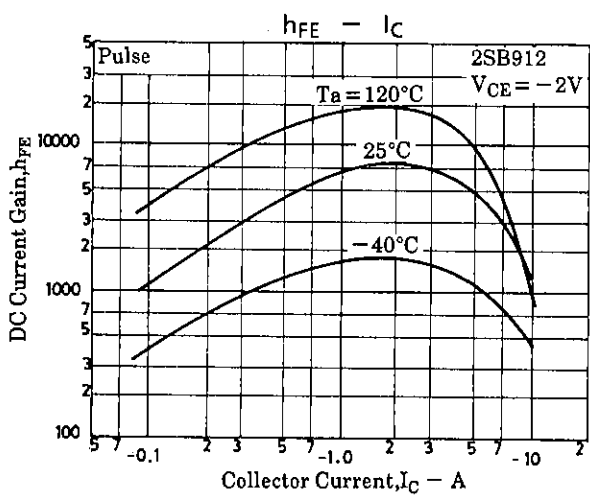
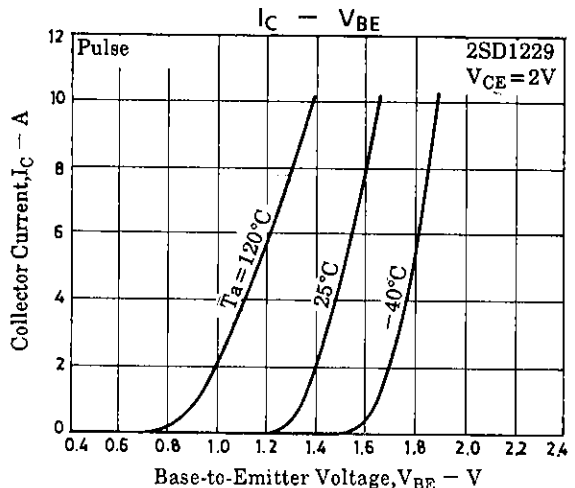
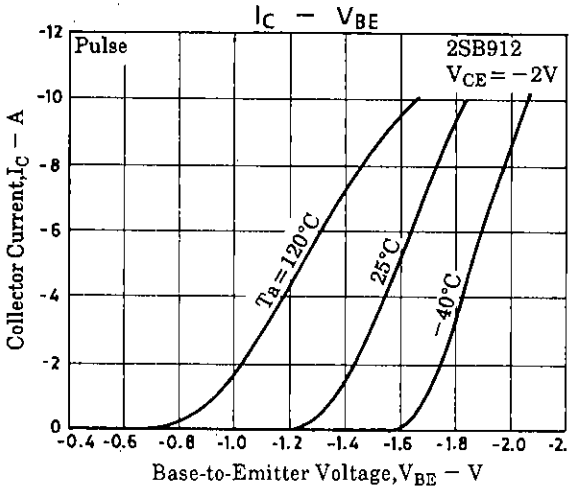
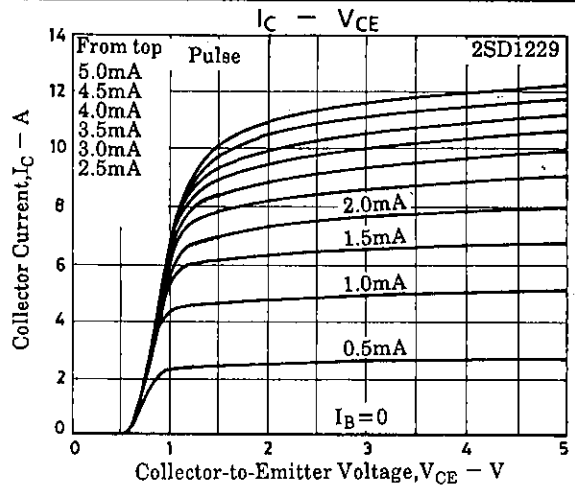
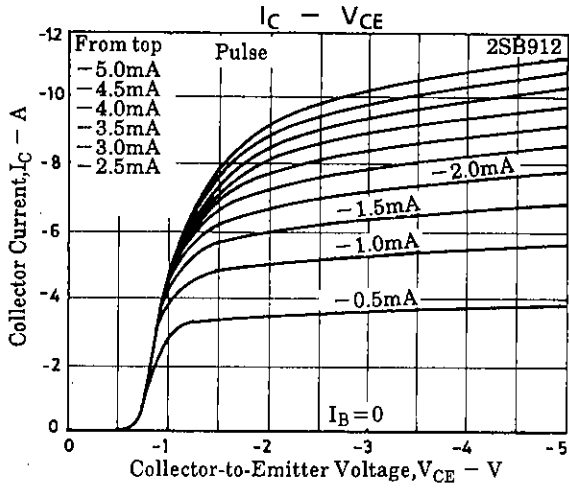
Electrical Connection



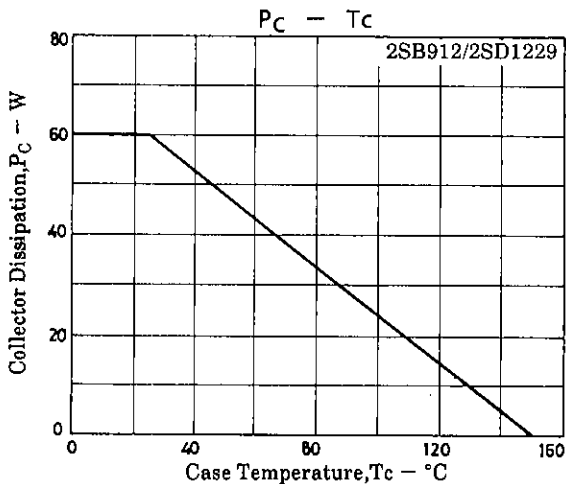
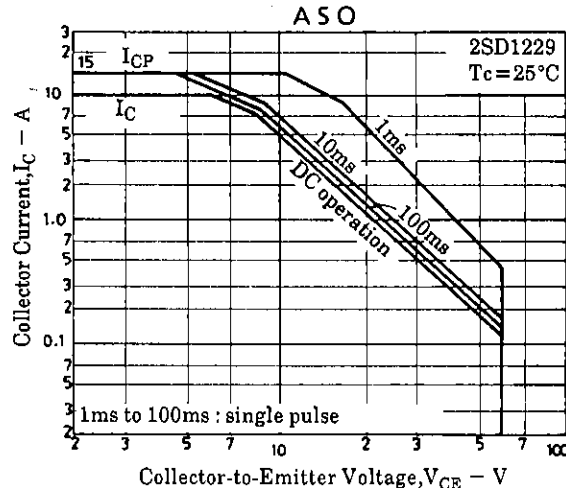
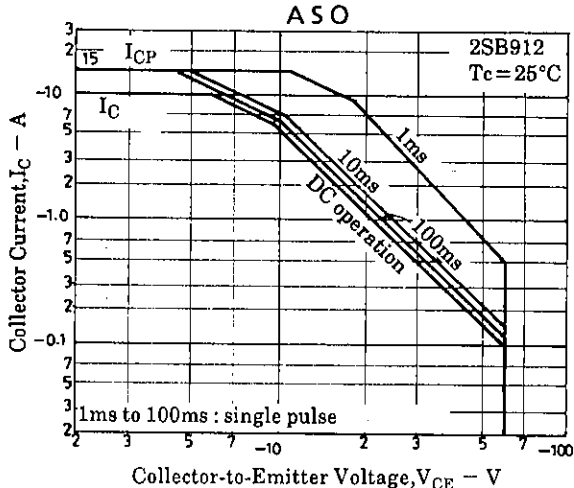
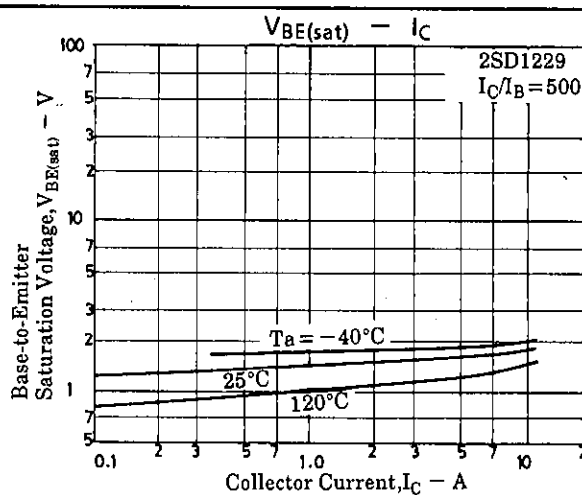
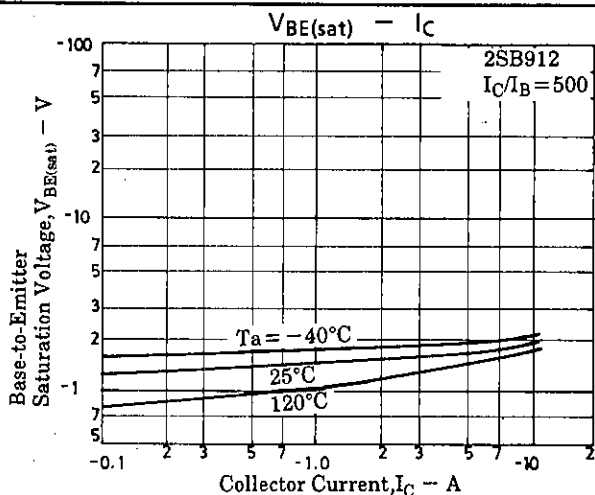
Package Dimensions 2022A
(unit : mm)



1 : Base
2 : Collector
3 : Emitter
SANYO:TO3PB



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