

SANYO	No. 3720	2SB1388/2SD2093
		2SB1388 : PNP Epitaxial Planar Silicon Transistors 2SD2093 : NPN Triple Diffused Planar Silicon Transistors Driver Applications

Applications

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

Features

- High DC current gain.
- Large current capacity and large ASO.
- Low saturation voltage.
- Micaless package facilitating mounting.

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Absolute Maximum Ratings at Ta = 25°C

Collector-to-Base Voltage	V _{CB0}	(-)110	V
Collector-to-Emitter Voltage	V _{CEO}	(-)100	V
Emitter-to-Base Voltage	V _{EBO}	(-)6	V
Collector Current	I _C	(-)10	A
Peak Collector Current	i _{cp}	(-)15	A
Collector Dissipation	P _C	3.0	W
		45	W
		150	°C
Junction Temperature	T _j		
Storage Temperature	T _{stg}	-55 to +150	°C

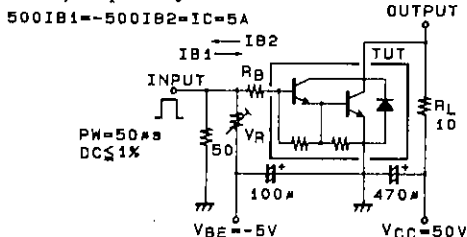
T_c = 25°C

Electrical Characteristics at Ta = 25°C

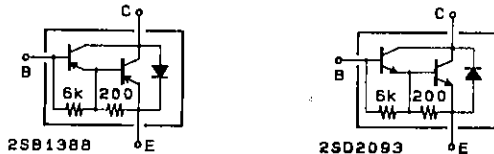
			min	typ	max	unit
Collector Cutoff Current	I _{CBO}	V _{CB} = (-)80V, I _E = 0			(-)0.1	mA
Emitter Cutoff Current	I _{EBO}	V _{CE} = (-)5V, I _C = 0			(-)3.0	mA
DC Current Gain	h _{FE}	V _{CE} = (-)3V, I _C = (-)5A	1500	4000		
Gain-Bandwidth Product	f _T	V _{CE} = (-)5V, I _C = (-)5A		20		MHz
C-E Saturation Voltage	V _{CE(sat)}	I _C = (-)5A, I _B = (-)10mA	(-1.0)	0.9	(-)1.5	V
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	(-)110			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = (-)50mA, R _{BE} = ∞	(-)100			V
Turn-ON 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

Switching Time Test Circuit

(For PNP, the polarity is reversed)



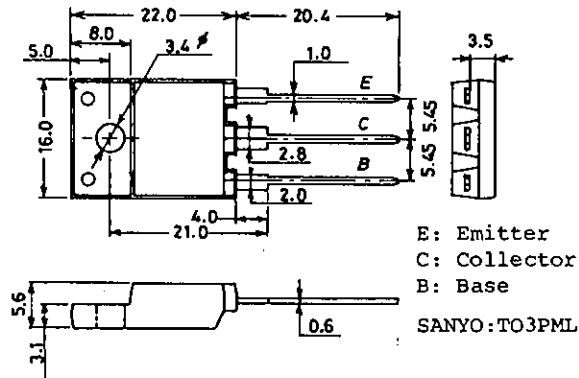
Electrical Connection



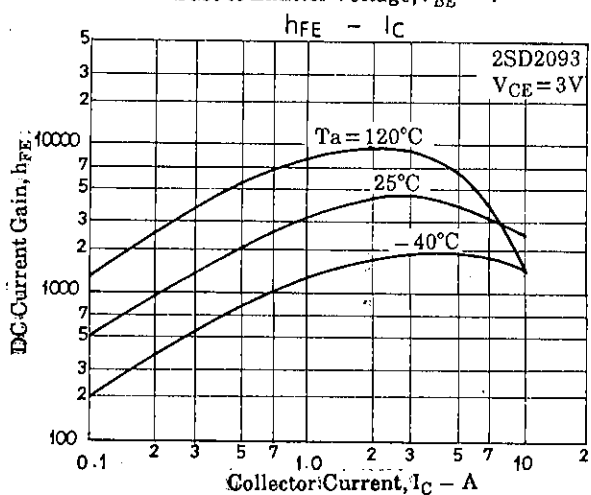
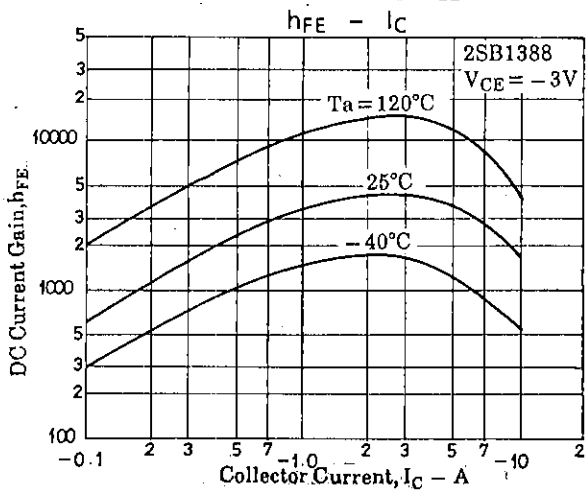
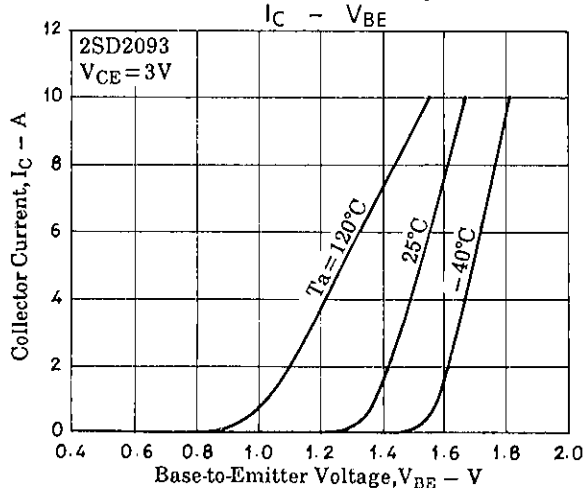
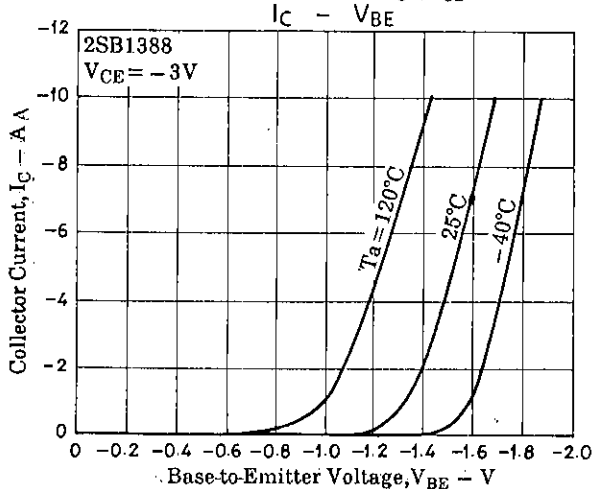
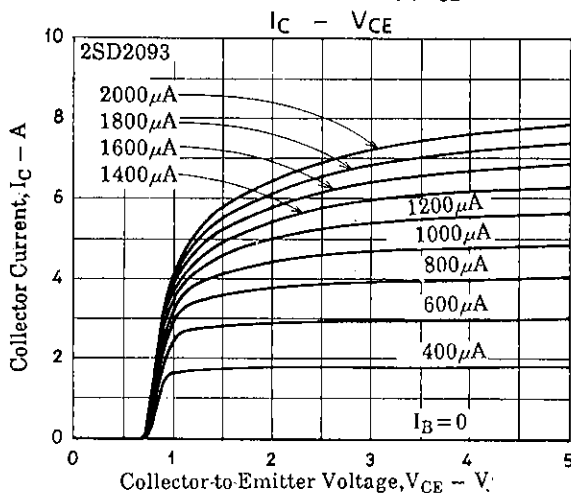
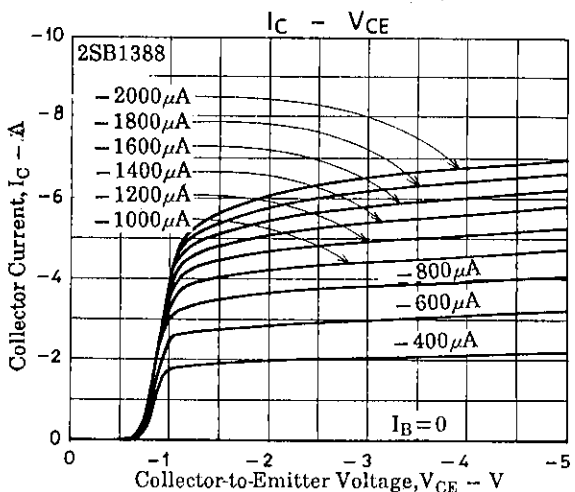
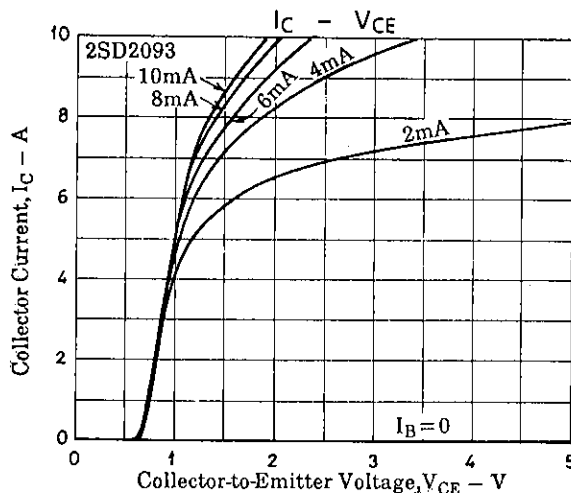
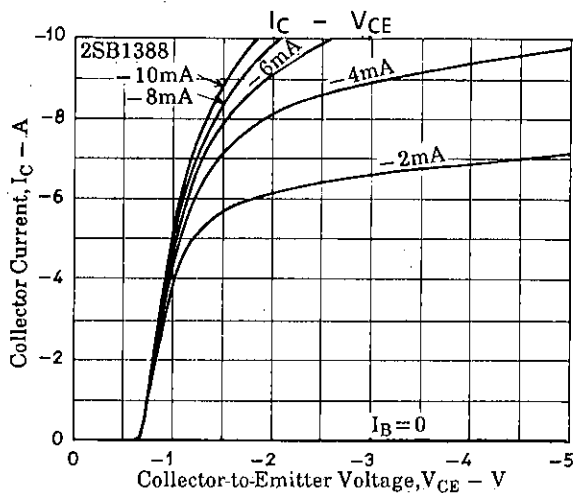
Unit (Resistance : Ω, Capacitance : F)

Package Dimensions 2039A

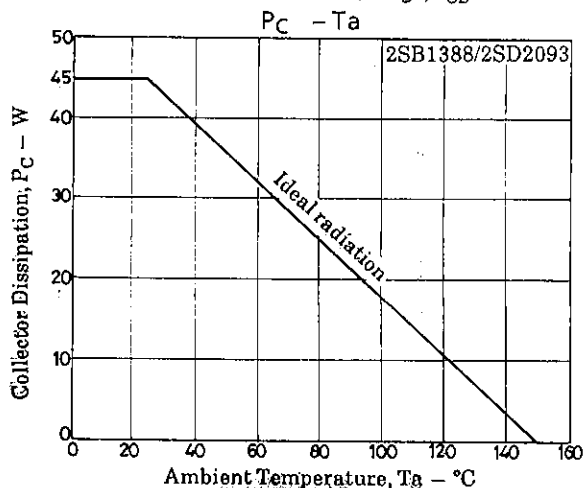
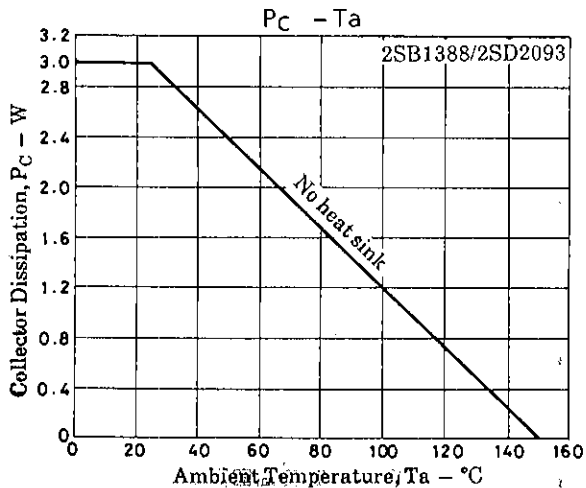
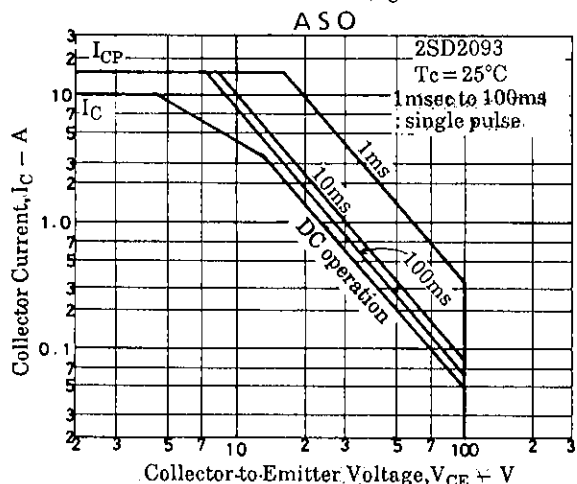
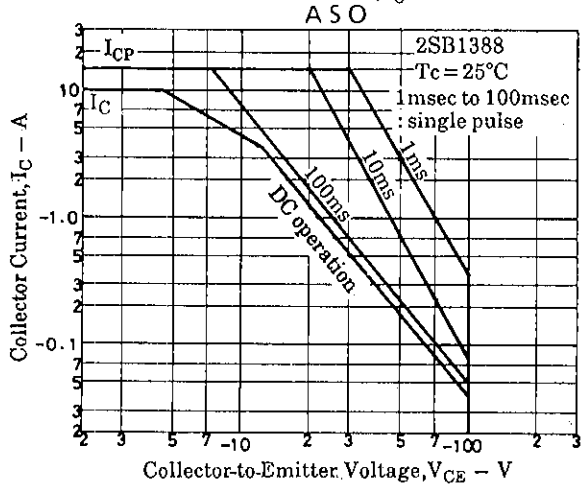
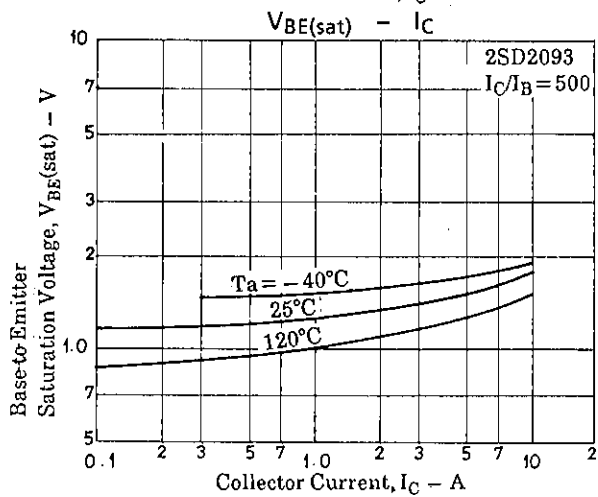
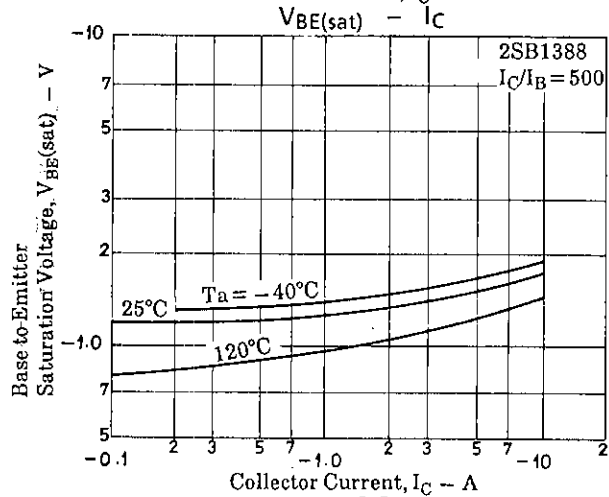
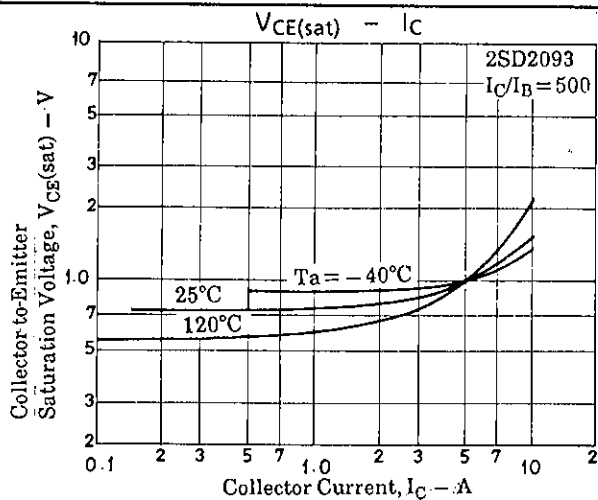
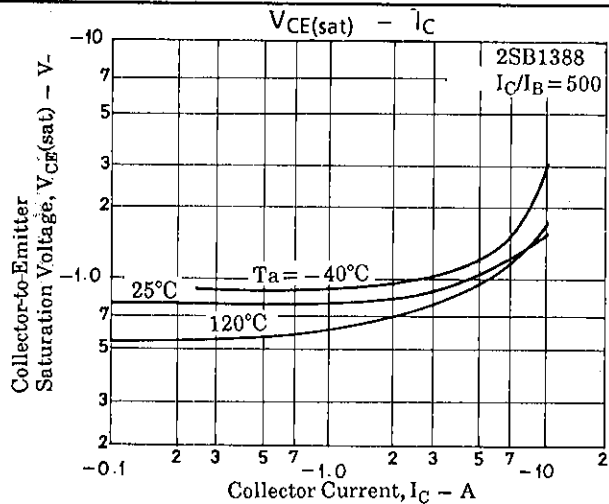
(unit : mm)



E: Emitter
C: Collector
B: Base
SANYO:TO3PML



2SB1388/2SD2093



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