



SANYO Semiconductors

DATA SHEET

~~2SB892 / 2SD1207~~ — ~~PNP~~ NPN Epitaxial Planar Silicon Transistors

Large-Current Switching Applications

Applications

- Power supplies, relay drivers, lamp drivers, and automotive wiring.

Features

- FBET and MBIT processed (Original process of SANYO).
- Low saturation voltage.
- Large current capacity and wide ASO.

Specifications ~~(-) : 2SB892~~

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		≈ 60	V
Collector-to-Emitter Voltage	VCEO		≈ 50	V
Emitter-to-Base Voltage	VEBO		≈ 6	V
Collector Current	IC		≈ 2	A
Collector Current (Pulse)	ICP		≈ 4	A
Collector Dissipation	PC		1	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	ICBO	V _{CB} = ≈ 50 V, I _E =0A			≈ 0.1	μA
Emitter Cutoff Current	IEBO	V _{EB} = ≈ 4 V, I _C =0A			≈ 0.1	μA

Continued on next page.

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	h_{FE1}^*	$V_{CE} = (\pm)2V, I_C = (\pm)100mA$	100		560	
	h_{FE2}	$V_{CE} = (\pm)2V, I_C = (\pm)1.5A$	40			
Gain-Bandwidth Product	f_T	$V_{CE} = (\pm)10V, I_C = (\pm)50mA$		150		MHz
Output Capacitance	C_{ob}	$V_{CB} = (\pm)10V, f = 1MHz$		(22) 12		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = (\pm)1A, I_B = (\pm)50mA$		(=0.3) 0.15	(=0.7) 0.4	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = (\pm)1A, I_B = (\pm)50mA$		(=) 0.9	(=) 1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (\pm)10\mu A, I_E = 0A$	(=) 60			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (\pm)1mA, R_{BE} = \infty$	(=) 50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (\pm)10\mu A, I_C = 0A$	(=) 6			V

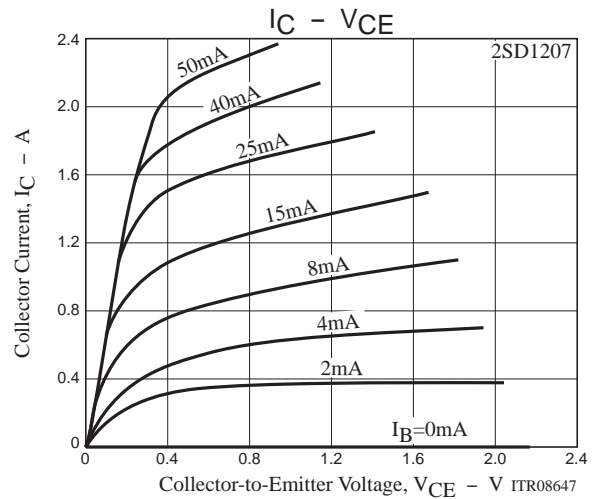
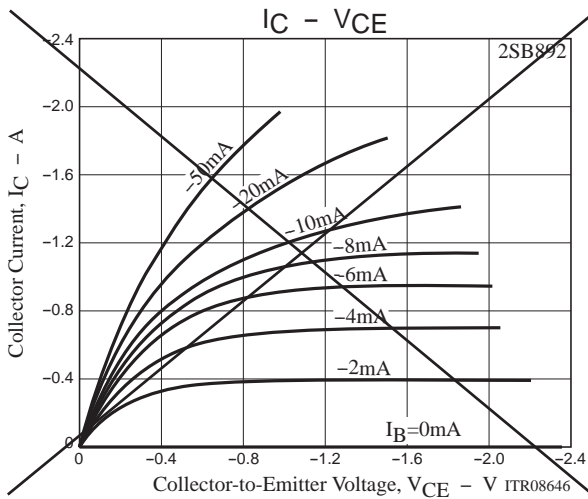
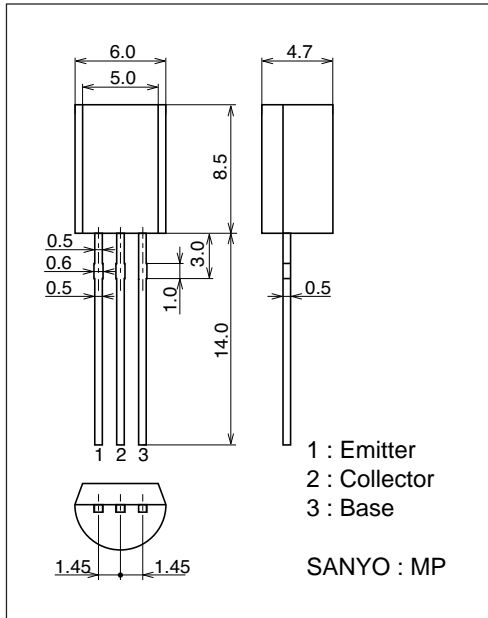
* : The ~~2SB892~~ 2SD1207 are graded as follows by h_{FE} at 100mA :

Rank	R	S	T	U
h_{FE}	100 to 200	140 to 280	200 to 400	280 to 560

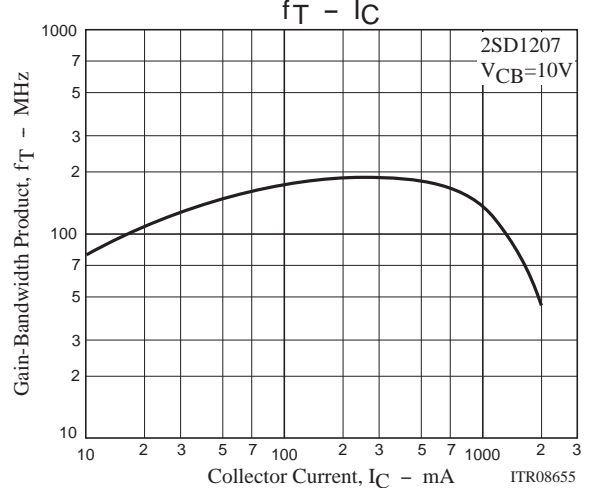
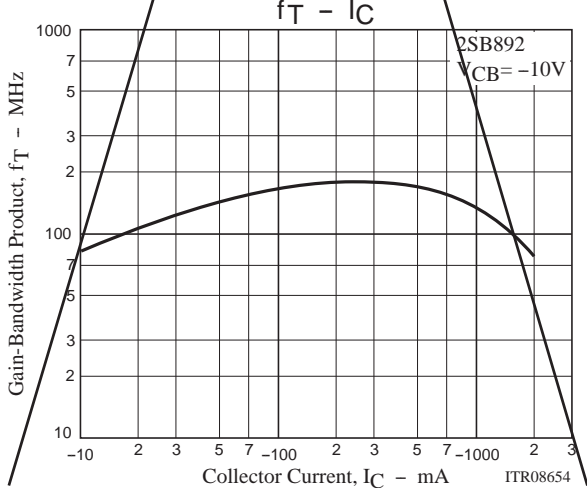
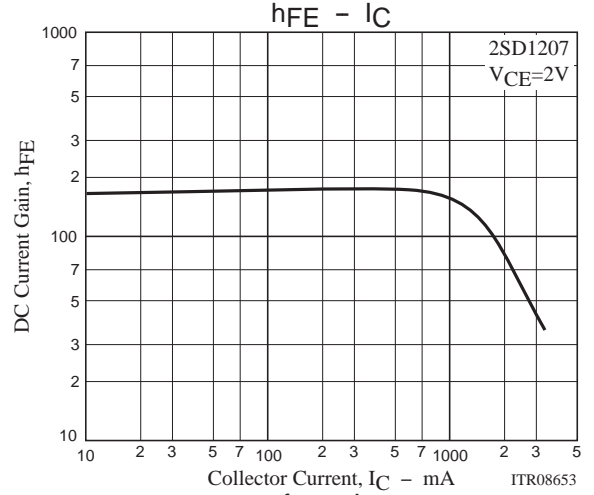
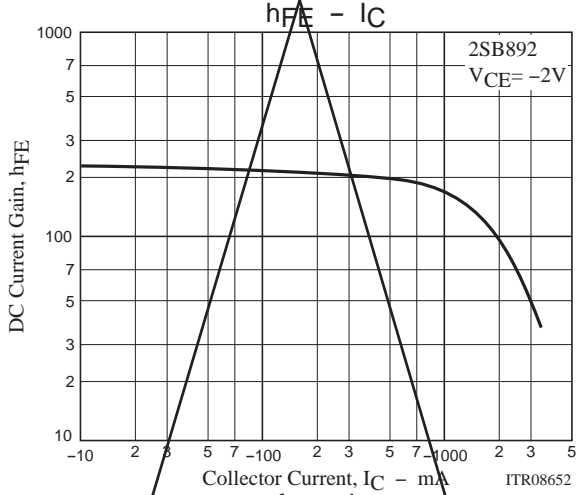
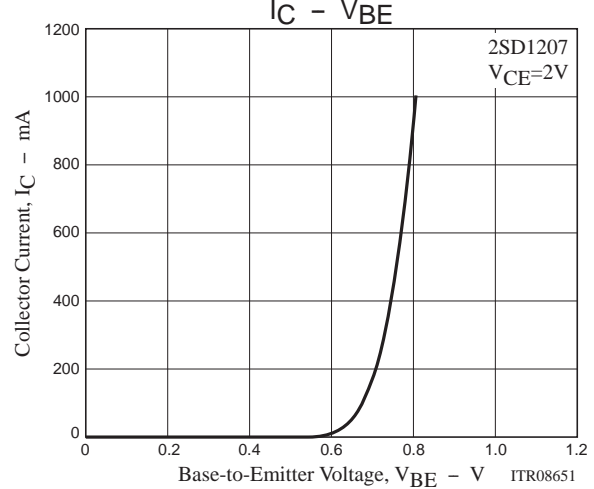
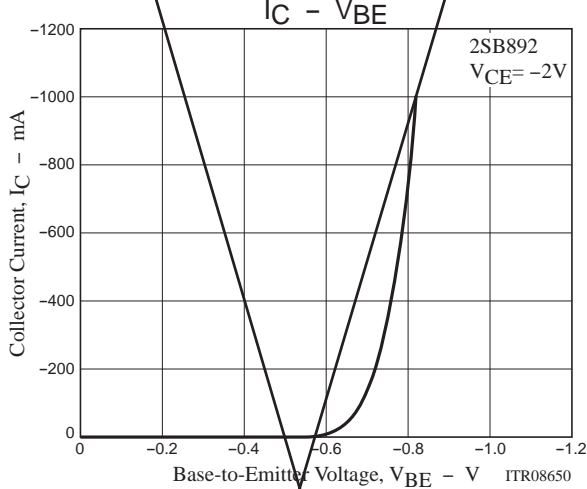
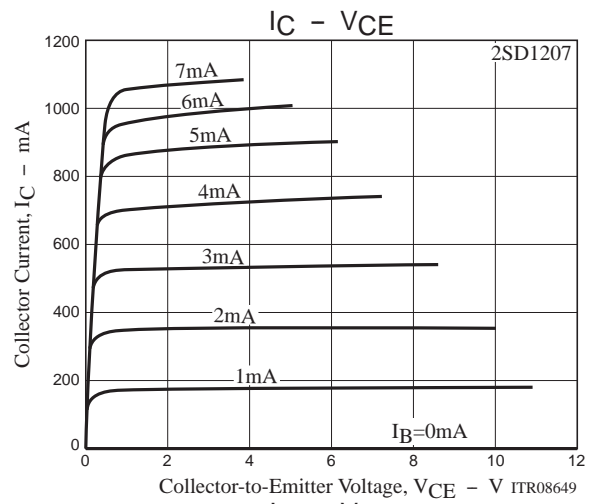
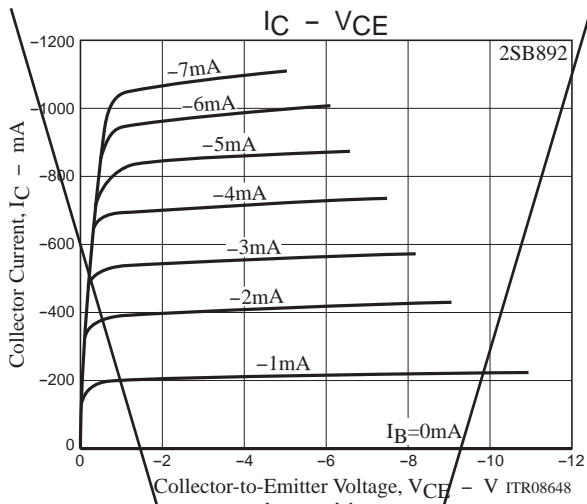
Package Dimensions

unit : mm (typ)

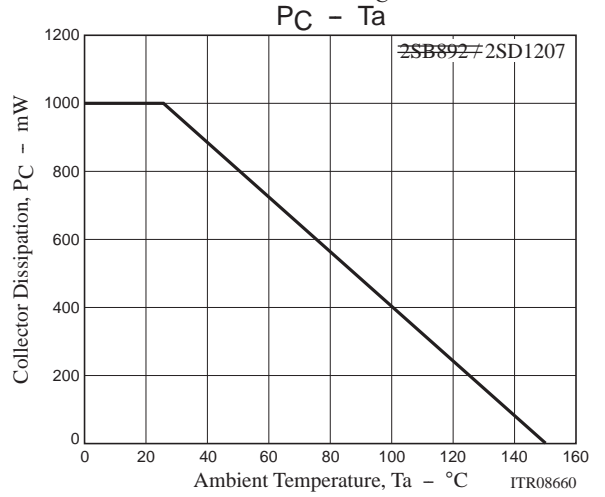
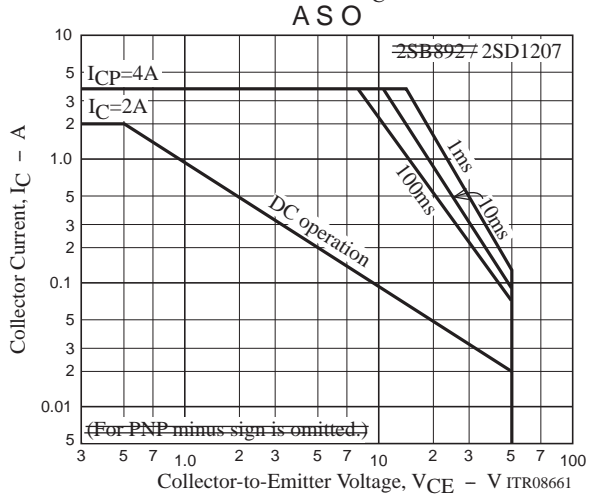
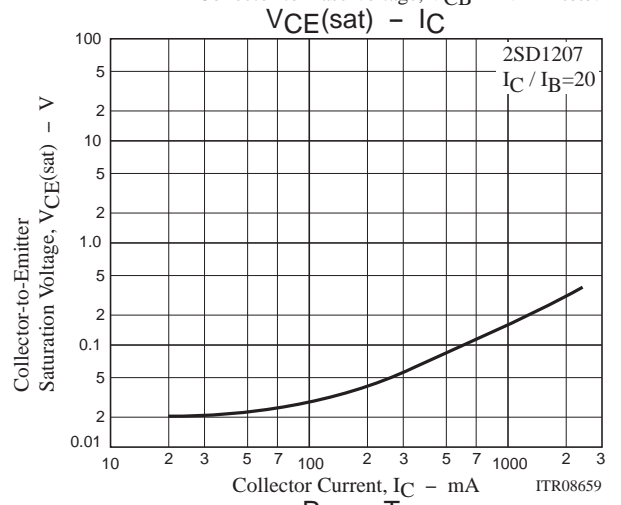
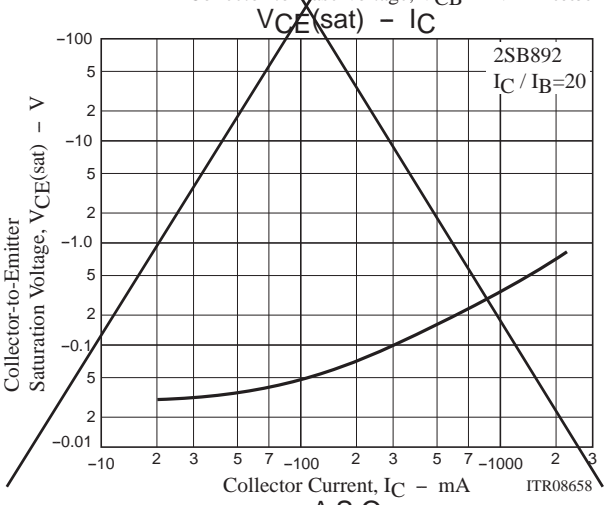
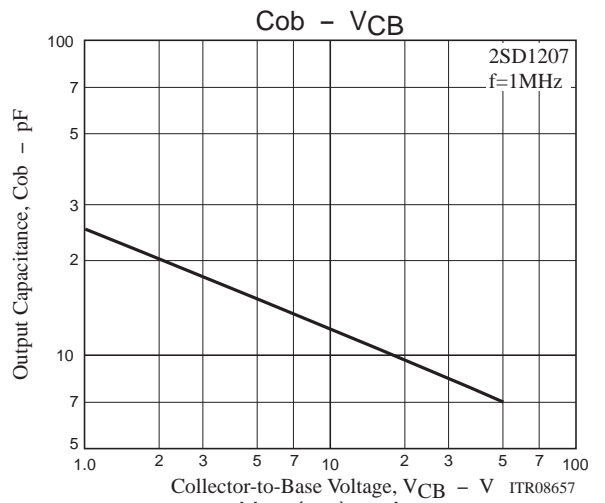
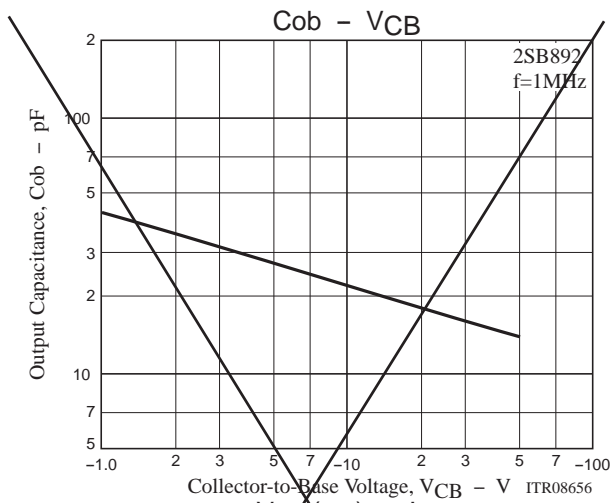
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