

SANYO	No.3150	2SB1450/2SD2199
		PNP/NPN Epitaxial Planar Silicon Transistors 50V/7A Switching Applications

Features

- Surface mount type device making the following possible
- Reduction in the number of manufacturing processes for 2SB1450/2SD2199-applied equipment
- High density surface mount applications
- Small size of 2SB1450/2SD2199-applied equipment
- Low collector-to-emitter saturation voltage
- Highly resistant to breakdown because of wide ASO

() : 2SB1450

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector-to-Base Voltage	V _{CB0}	(-)60	V
Collector-to-Emitter Voltage	V _{CEO}	(-)50	V
Emitter-to-Base Voltage	V _{EBO}	(-)6	V
Collector Current	I _C	(-)7	A
Collector Current(Pulse)	I _{CP}	(-)12	A
Collector Dissipation	P _C	1.65	W
		40	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

T_c = 25°C

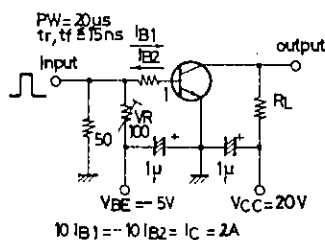
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CBO}	V _{CB} = (-)40V, I _E = 0			(-)0.1	mA
Emitter Cutoff Current	I _{EBO}	V _{EB} = (-)4V, I _C = 0			(-)0.1	mA
DC Current Gain	h _{FE} (1)	V _{CE} = (-)2V, I _C = (-)1A	70*		280*	
	h _{FE} (2)	V _{CE} = (-)2V, I _C = (-)5A	30			
Gain-Bandwidth Product	f _T	V _{CE} = (-)5V, I _C = (-)1A		10		MHz
C-E Saturation Voltage	V _{CE(sat)}	I _C = (-)4A, I _B = (-)0.4A			(-)0.4	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = (-)1mA, I _E = 0	(-)60			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = (-)1mA, R _{BE} = ∞	(-)50			V
E-B Breakdown Voltage	V _{(BR)EBO}	I _E = (-)1mA, I _C = 0	(-)6			V
Turn-ON Time	t _{on}	See specified Test Circuit.		0.2		μs
Storage Time	t _{stg}	"	(0.1)0.3			μs
Fall Time	t _f	"	(0.7)0.9			μs

* : The 2SB1450/2SD2199 are classified by 1A h_{FE} as follows:

70	Q	140	100	R	200	140	S	280
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Switching Time Test Circuit



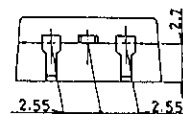
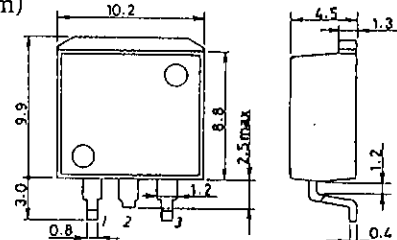
10 I_{B1} = -10 I_{B2} = I_C = 2A

For PNP, the polarity is reversed.

Unit (Resistance : Ω, Capacitance : F)

Package Dimensions 2069B

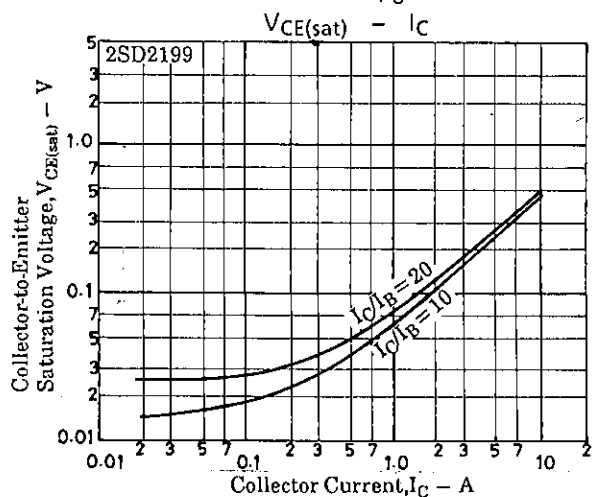
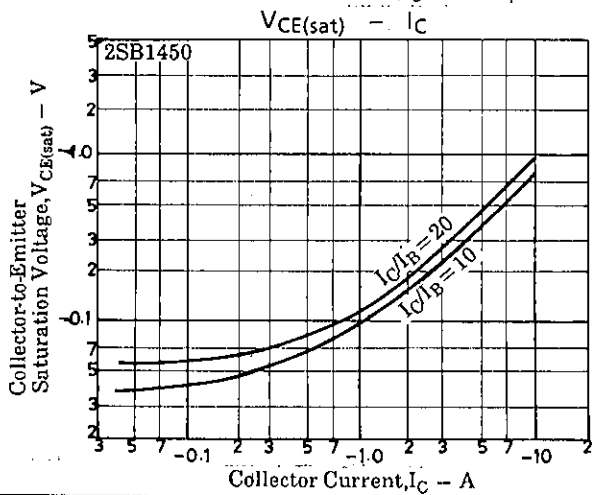
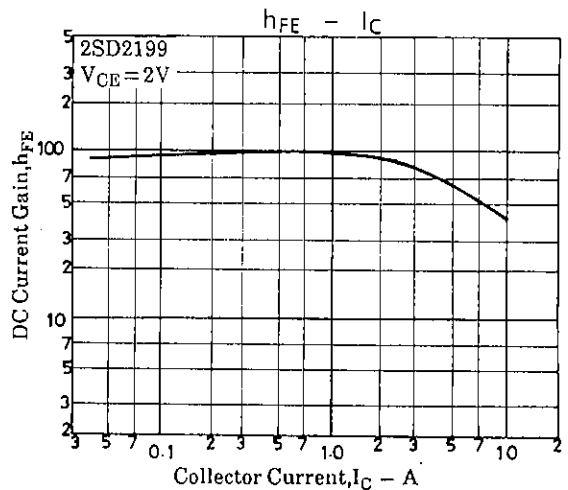
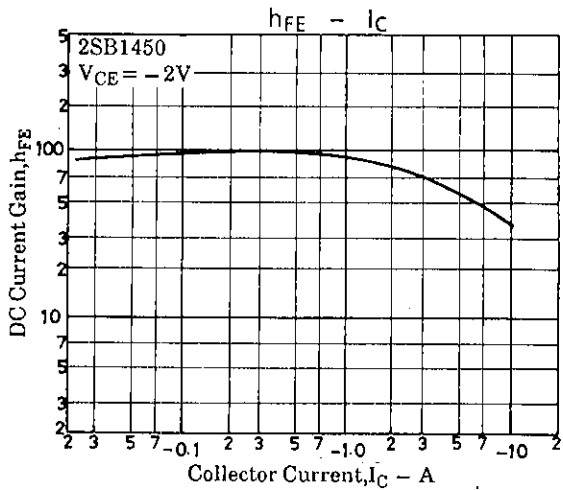
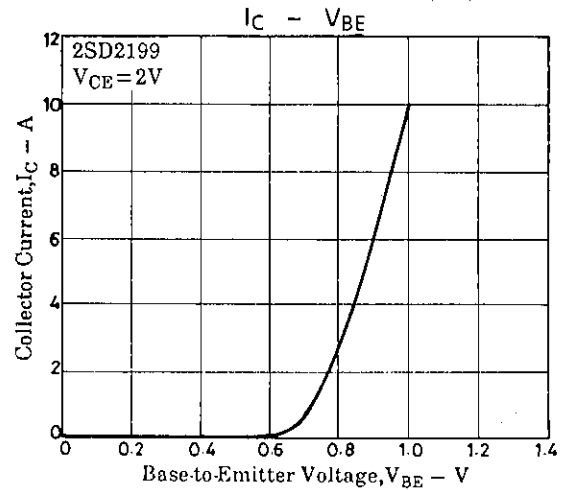
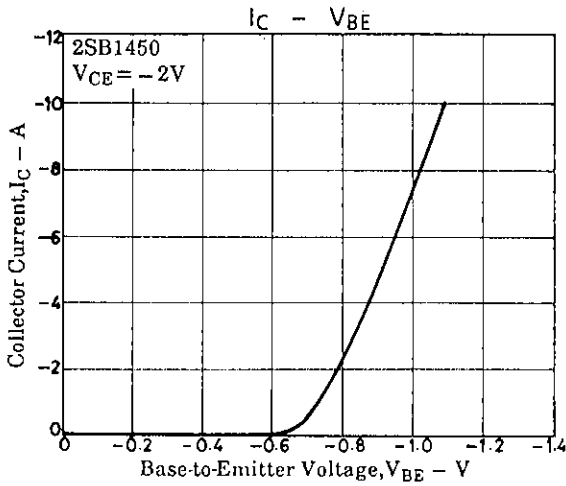
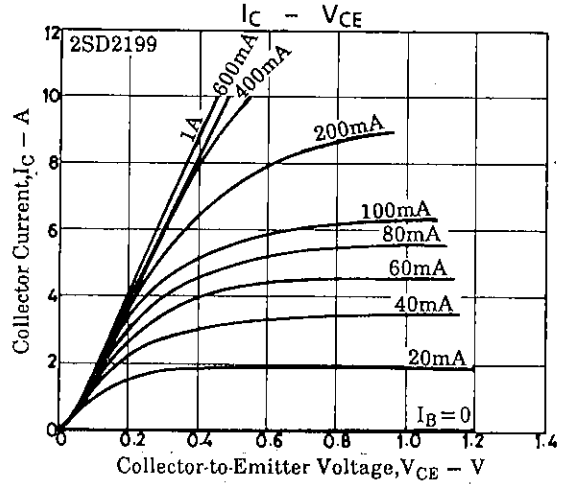
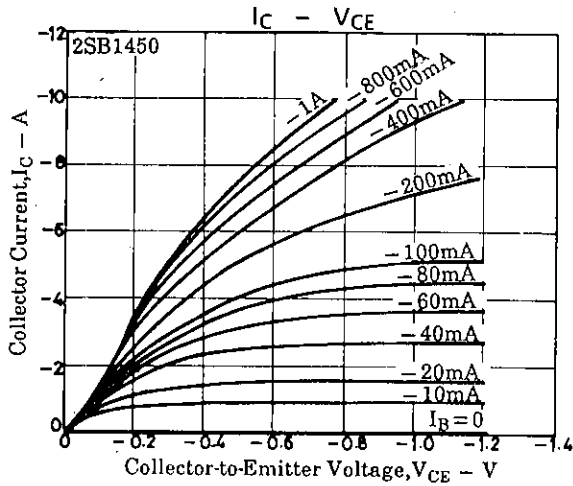
(unit : mm)

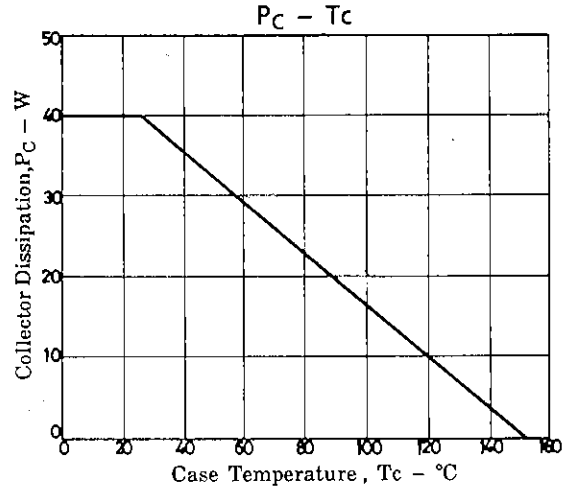
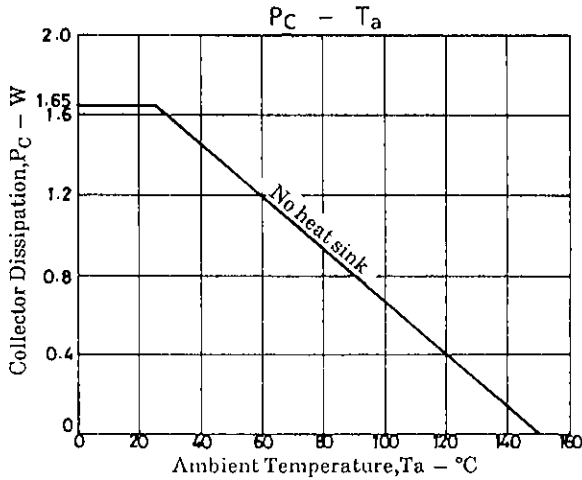
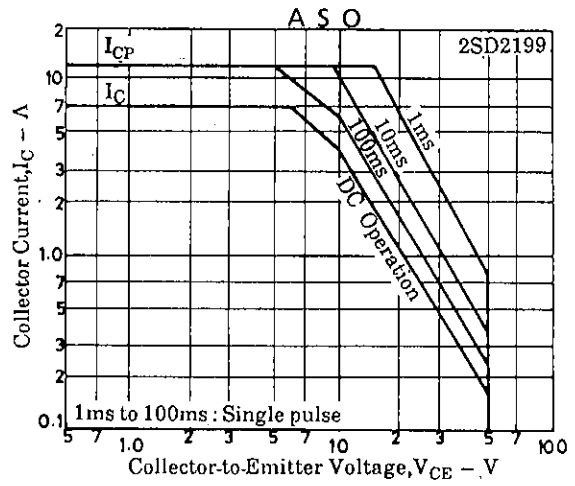
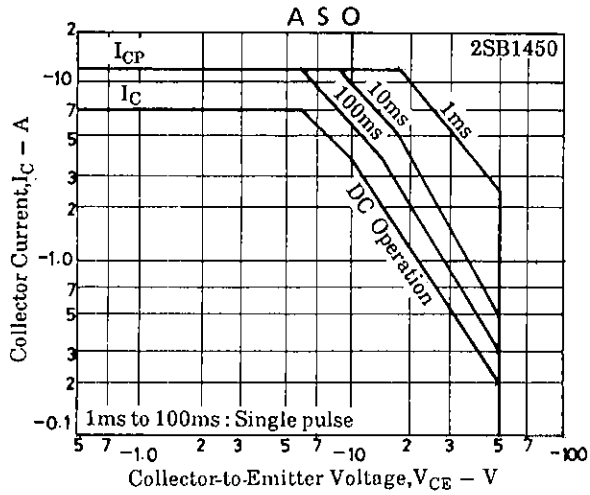


1 : Base
2 : Collector
3 : Emitter

SANYO : SMP-FD

2SB1450/2SD2199





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