

SANYO Semiconductors DATA SHEET

2SA1450 / 2SC3708 — PNP / NPN Epitaxial Planar Silicon Transistors Low-Frequency Driver Applications

Features

· Adoption of FBET process.

• AF amp, AF power amp.

• High breakdown voltage: VCEO > 80V.

Specifications (): 2SA1450

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		(-)100	V
Collector-to-Emitter Voltage	VCEO		(-)80	V
Emitter-to-Base Voltage	VEBO		(-)5	V
Collector Current	IC		(-)500	mA
Collector Current (Pulse)	ICP		(-)800	mA
Base Current	IB		(-)100	mA
Collector Dissipation	PC		600	mW
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	Offic
Collector Cutoff Current	ICBO	V _{CB} =(-)60V, I _E =0A			(-)0.1	μΑ
Emitter Cutoff Current	IEBO	V _{EB} =(-)4V, I _C =0A			(-)0.1	μΑ
DC Current Gain	hFE1	VCE=(-)5V, IC=(-)50mA	100*		400*	
	hFE2	V _{CE} =(-)5V, I _C =(-)400mA	60			

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^{*:} The 2SA1450 / 2SC3708 are classified by 50mA hFE as follws:

Rank	R	S	T		
hFE	100 to 200	140 to 280	200 to 400		

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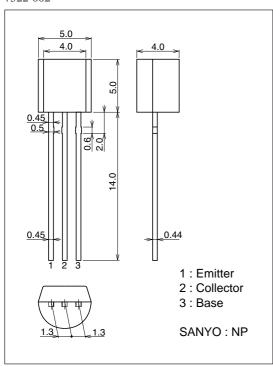
2SA1450 / 2SC3708

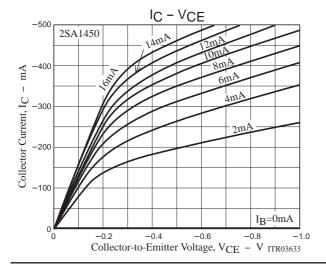
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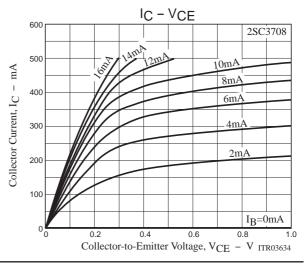
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Gain-Bandwidth Product	fT	VCE=(-)10V, IC=(-)10mA		120		MHz
Output Capacitance	Cob	V _{CB} =(-)10V, f=1MHz		(7)5		pF
Collector-to-Emitter Saturation Voltage	V _{CE} (sat)	I _C =(-)400mA, I _B =(-)40mA		(-0.2)0.16	(-)0.5	V
Base-to-Emitter Saturation Voltage	V _{BE} (sat)	IC=(-)400mA, IB=(-)40mA		(-)0.9	(-)1.2	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =(-)10μA, I _E =0A	(-)100			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	I _C =(-)1mA, R _{BE} =∞	(-)80			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	I _E =(-)10μA, I _C =0A	(-)5			V

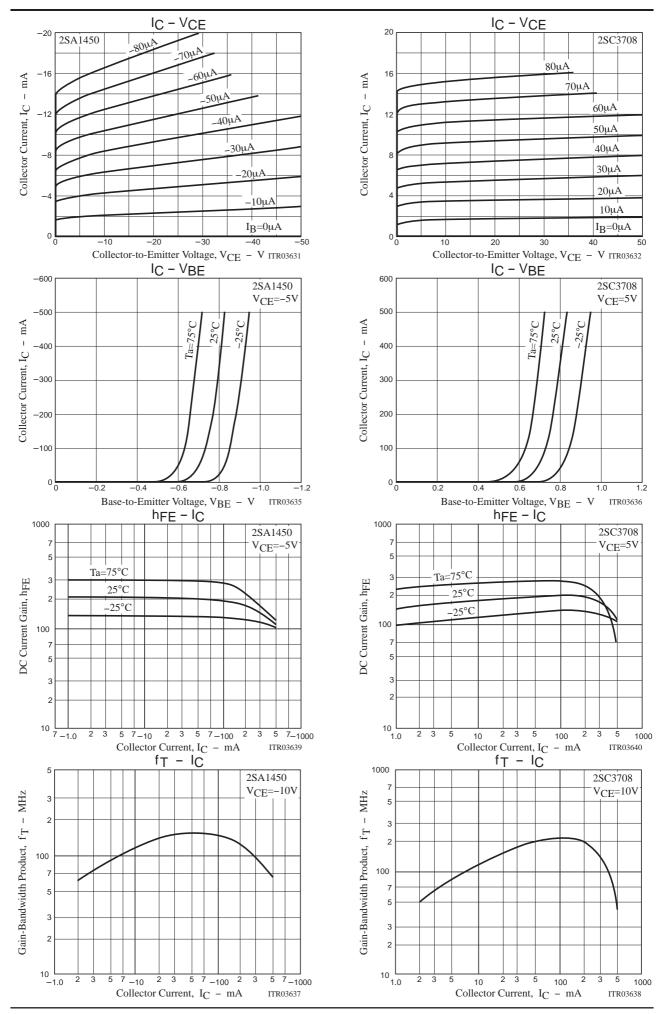
Package Dimensions

unit : mm (typ) 7522-002

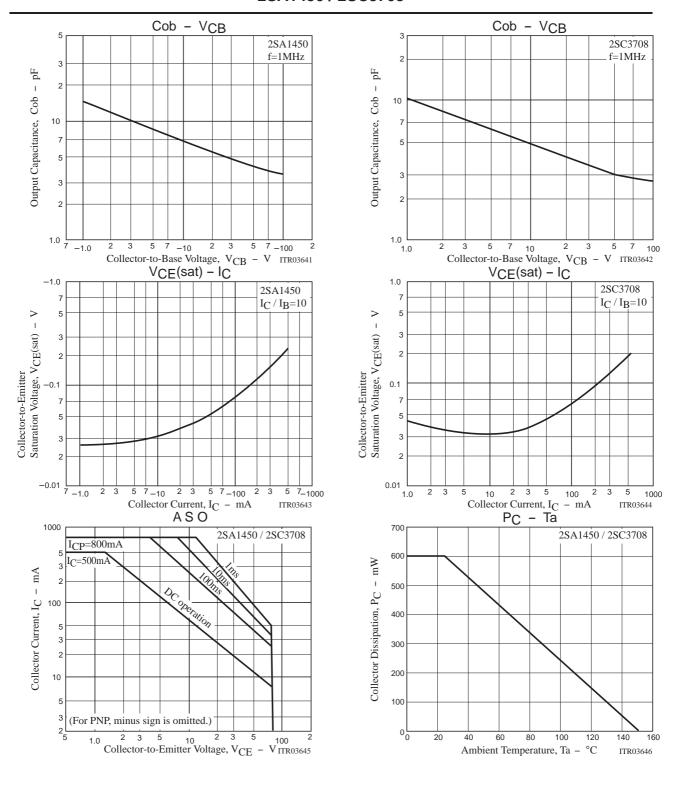








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