

SANYO Semiconductors

DATA SHEET

2SA2222 -

PNP Epitaxial Planar Silicon Transistor

High-Current Switching Applications

Applications

· Relay drivers, lamp drivers, motor drivers.

Features

- · Adoption of MBIT process.
- · Large current capacitance.
- · Low collector-to-emitter saturation voltage.
- · High-speed switching.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		-50	V
Collector-to-Emitter Voltage	VCEO		-50	V
Emitter-to-Base Voltage	VEBO		-6	V
Collector Current	IC		-10	А
Collector Current (Pulse)	ICP		-13	Α
Base Current	IB		-2	Α
Collector Dissipation	Do.		2	W
	PC	Tc=25°C	25	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

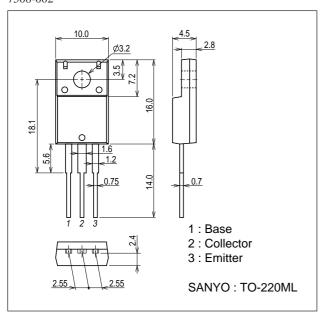
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Electrical Characteristics at Ta=25°C

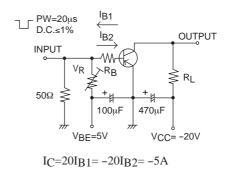
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Collector Cutoff Current	ІСВО	V _{CB} =-40V, I _E =0A			-10	μΑ
Emitter Cutoff Current	IEBO	V _{EB} =-4V, I _C =0A			-10	μΑ
DC Current Gain	hFE	V _{CE} =-2V, I _C =-270mA	150		450	
Gain-Bandwidth Product	fT	V _{CE} =-10V, I _C =-1A		230		MHz
Output Capacitance	Cob	V _{CB} =-10V, f=1MHz		115		pF
Collector-to-Emitter Saturation Voltage	V _{CE} (sat)	I _C =-6A, I _B =-300mA		-250	-500	mV
Base-to-Emitter Saturation Voltage	V _{BE} (sat)	IC=-6A, IB=-300mA			-1.2	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =-100μA, I _E =0A	-50			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	IC=-1mA, RBE=∞	-50			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	I _E =-100μA, I _C =0A	-6			V
Turn-ON Time	ton	See specified Test Circuit.		40		ns
Storage Time	t _{stg}	See specified Test Circuit.		240		ns
Fall Time	tf	See specified Test Circuit.		22		ns

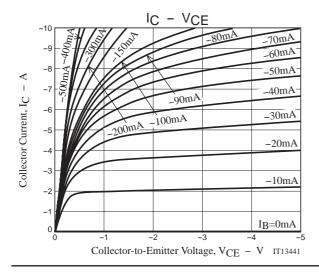
Package Dimensions

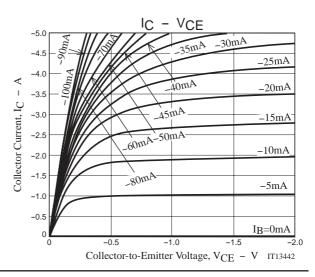
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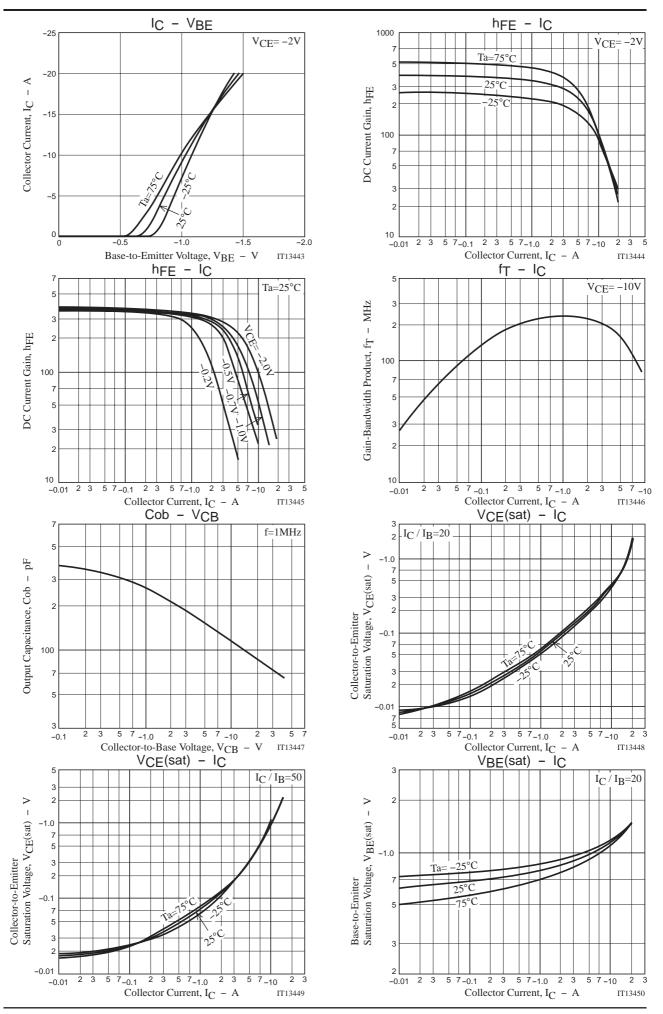


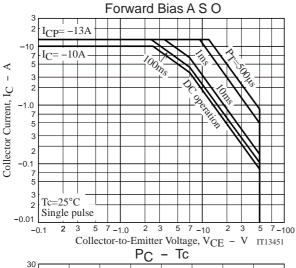
Switching Time Test Circuit

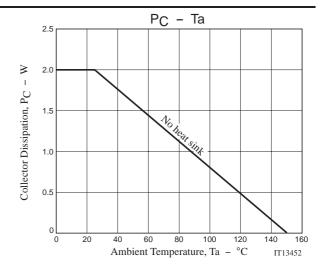


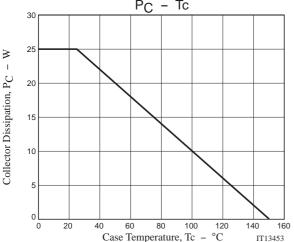












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