



SANYO Semiconductors

DATA SHEET

2SA2192

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.

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}		-50	V
Collector-to-Emitter Voltage	V _{CES}		-50	V
Collector-to-Emitter Voltage	V _{CEO}		-50	V
Emitter-to-Base Voltage	V _{EBO}		-8	V
Collector Current	I _C		-10	A
Collector Current (Pulse)	I _{CP}	PW≤100μs	-13	A
Base Current	I _B		-2	A
Collector Dissipation	P _C		0.95	W
		T _c =25°C	20	W
Junction Temperature	T _j		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CBO}	V _{CB} =-40V, I _E =0A			-10	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =-4V, I _C =0A			-10	μA
DC Current Gain	h _{FE}	V _{CE} =-2V, I _C =-1A	200		560	
Gain-Bandwidth Product	f _T	V _{CE} =-5V, I _C =-1A		130		MHz
Output Capacitance	C _{ob}	V _{CB} =-10V, f=1MHz		90		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-5A, I _B =-250mA		-290	-580	mV
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =-5A, I _B =-250mA		-0.93	-1.4	V

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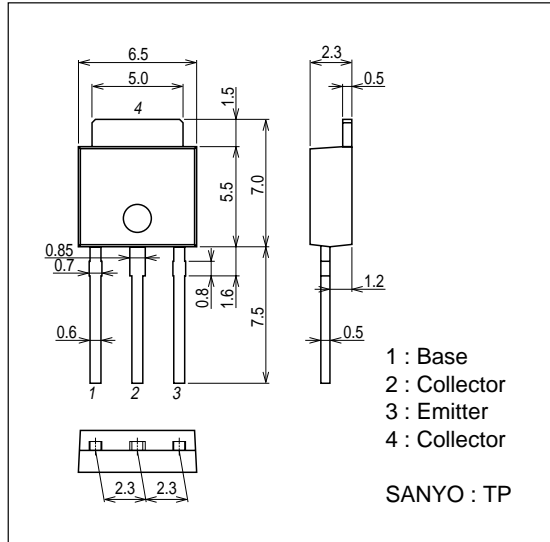
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0A$	-50			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CES}$	$I_C = -100\mu A, R_{BE} = 0\Omega$	-50			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0A$	-8			V
Turn-On Time	t_{on}	See specified Test Circuit.		70		ns
Storage Time	t_{stg}	See specified Test Circuit.		650		ns
Fall Time	t_f	See specified Test Circuit.		60		ns

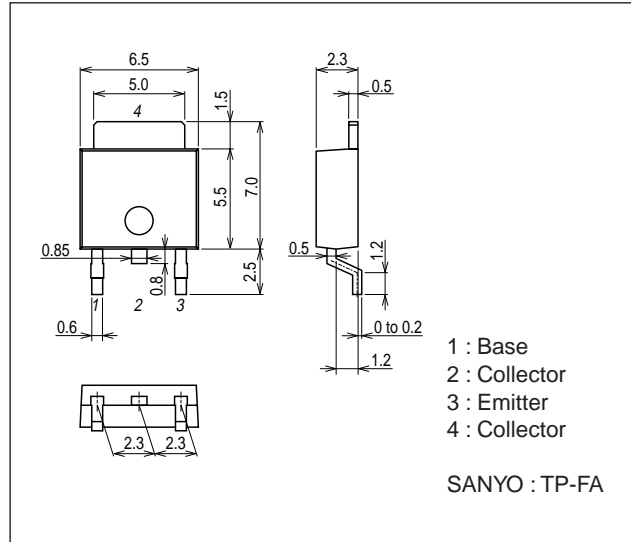
Package Dimensions

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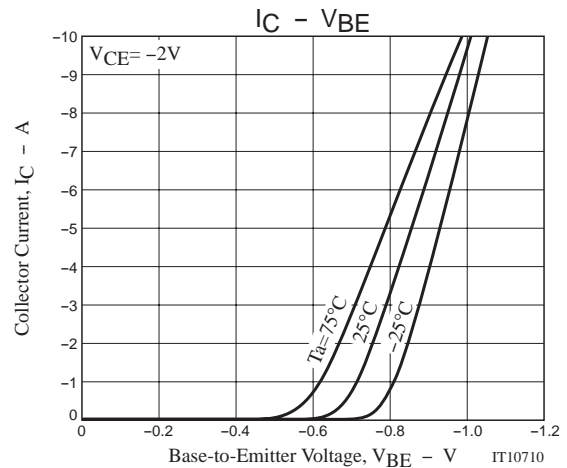
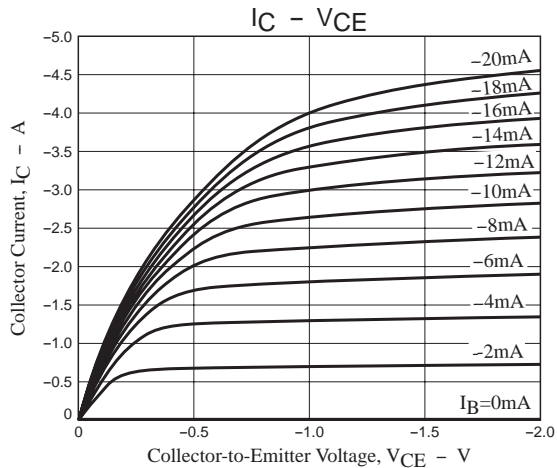
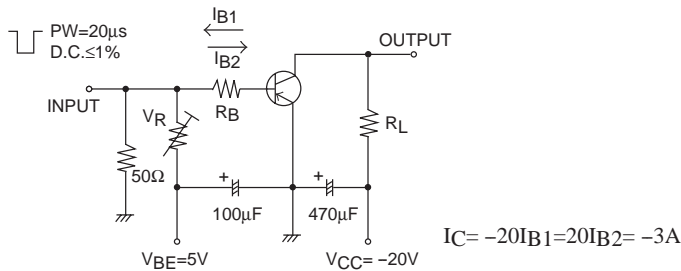


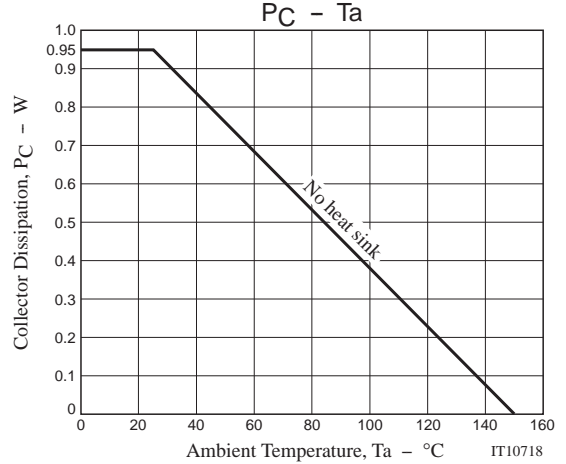
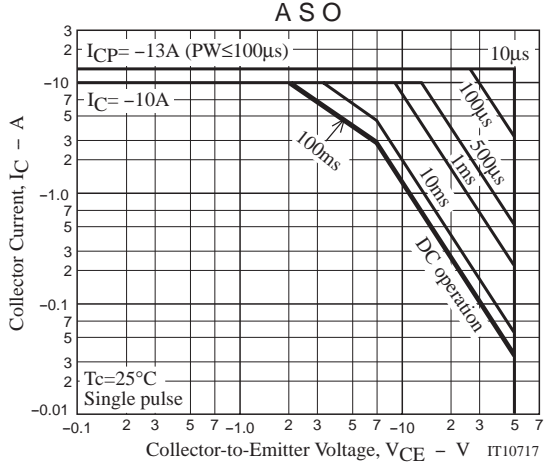
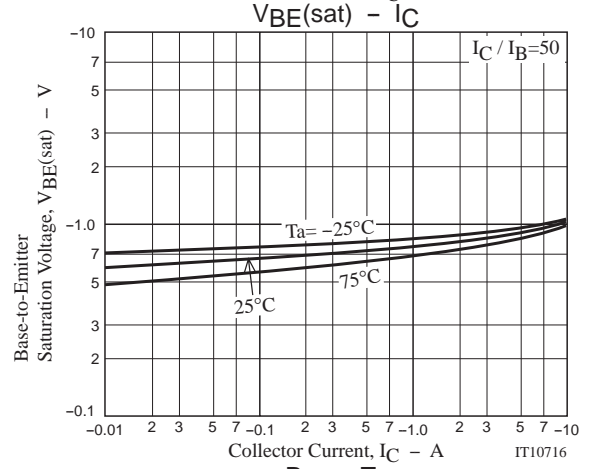
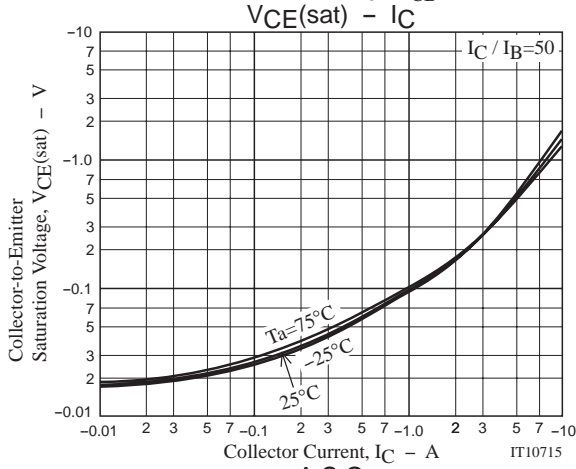
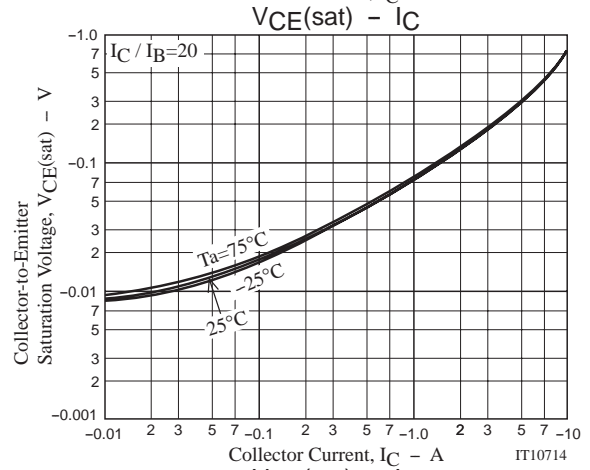
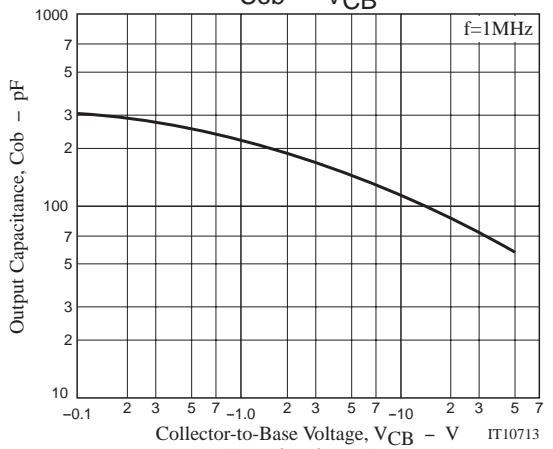
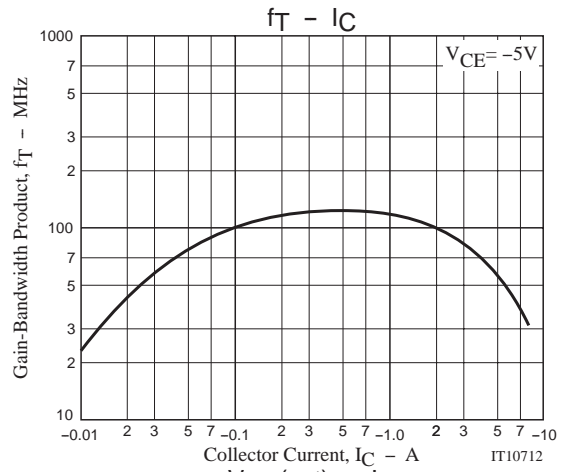
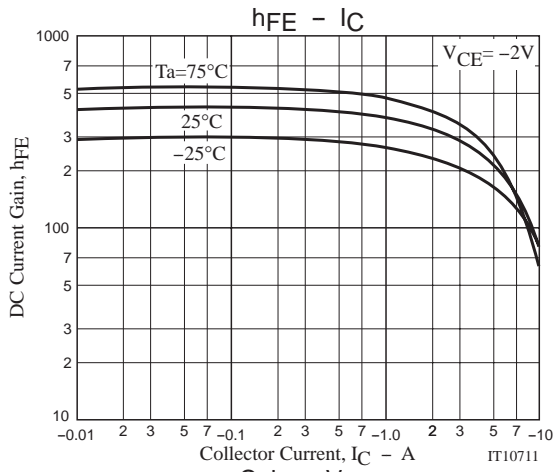
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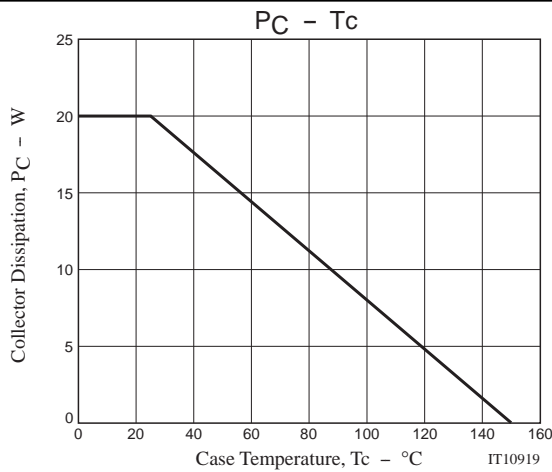
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Switching Time Test Circuit







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