



SANYO Semiconductors

DATA SHEET

PCP1103 — PNP Epitaxial Planar Silicon Transistor DC / DC Converter Applications

Applications

- DC / DC converters, relay drivers, lamp drivers, motor drivers, IGBT gate drivers.

Features

- Adoption of MBIT process.
- High current capacitance.
- Low collector-to-emitter saturation voltage.
- High speed switching.
- High allowable power dissipation.
- Halogen free compliance.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		-30	V
Collector-to-Emitter Voltage	V _{CEO}		-30	V
Emitter-to-Base Voltage	V _{EBO}		-5	V
Collector Current	I _C		-1.5	A
Collector Current (Pulse)	I _{CP}		-5	A
Base Current	I _B		-300	mA
Collector Dissipation	P _C	When mounted on ceramic substrate (450mm ² ×0.8mm)	1.3	W
		T _C =25°C	3.5	W
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Marking : RF

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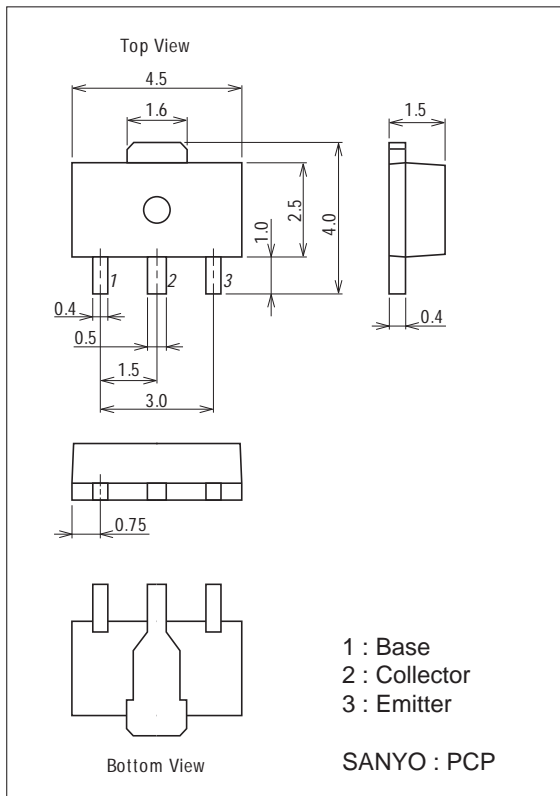
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	ICBO	V _{CB} = -30V, I _E = 0A			-0.1	μA
Emitter Cutoff Current	IEBO	V _{EB} = -4V, I _C = 0A			-0.1	μA
DC Current Gain	h _{FE}	V _{CE} = -2V, I _C = -100mA	200		560	
Gain-Bandwidth Product	f _T	V _{CE} = -10V, I _C = -300mA		450		MHz
Output Capacitance	C _{ob}	V _{CB} = -10V, f = 1MHz		9		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C = -0.75A, I _B = -15mA		-250	-375	mV
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C = -0.75A, I _B = -15mA		-0.85	-1.2	V
Collector-to-Base Breakdown Voltage	V _{(BR)CBO}	I _C = -10μA, I _E = 0A	-30			V
Collector-to-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C = -1mA, R _{BE} = ∞	-30			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E = -10μA, I _C = 0A	-5			V
Turn-On Time	t _{on}	See specified Test Circuit.		35		ns
Storage Time	t _{stg}	See specified Test Circuit.		115		ns
Fall Time	t _f	See specified Test Circuit.		30		ns

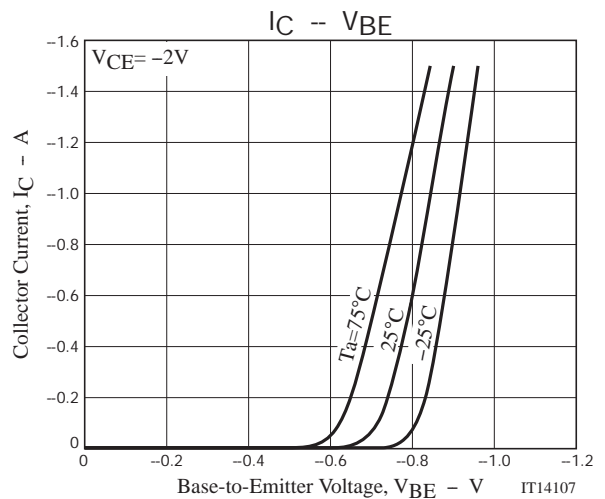
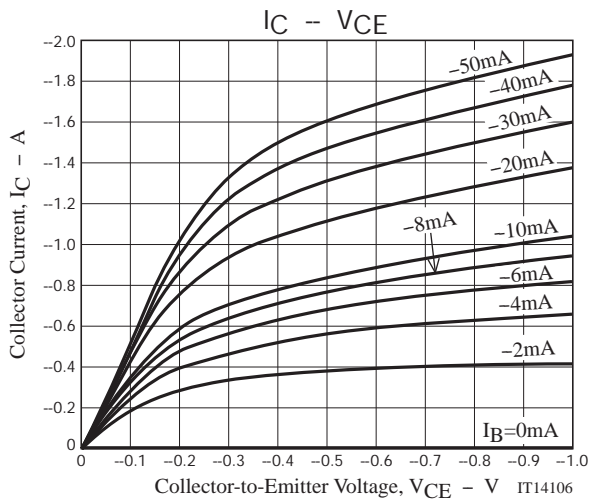
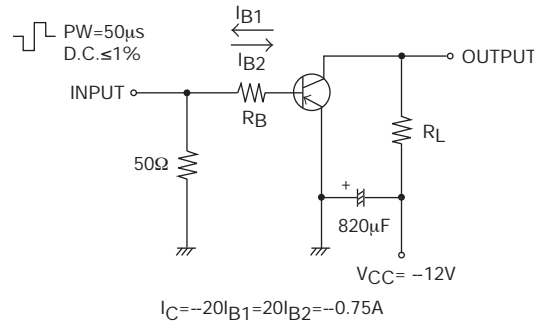
Package Dimensions

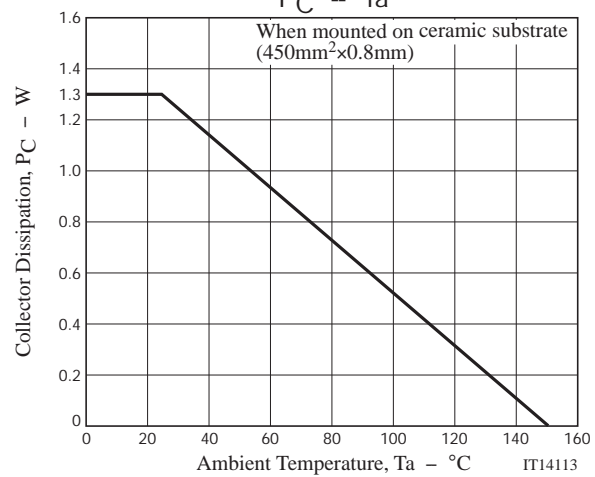
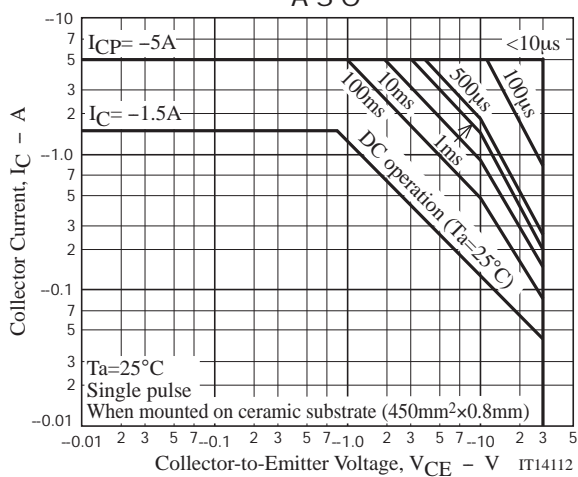
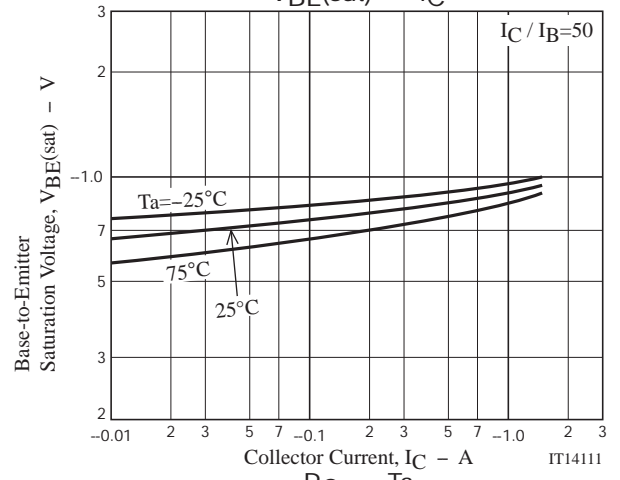
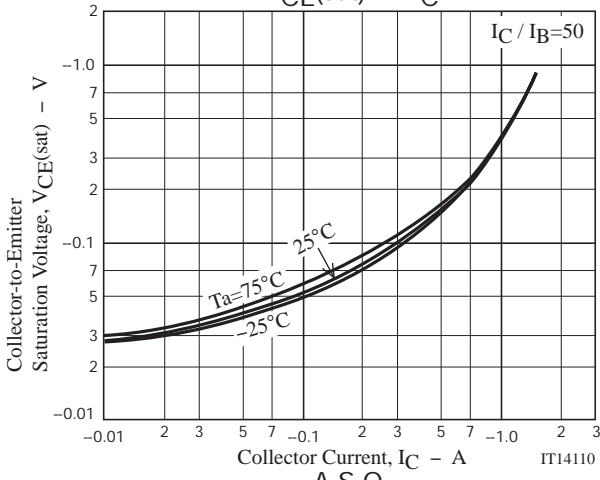
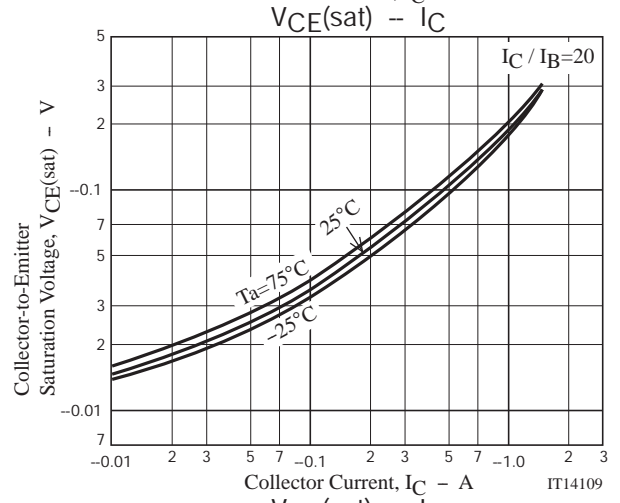
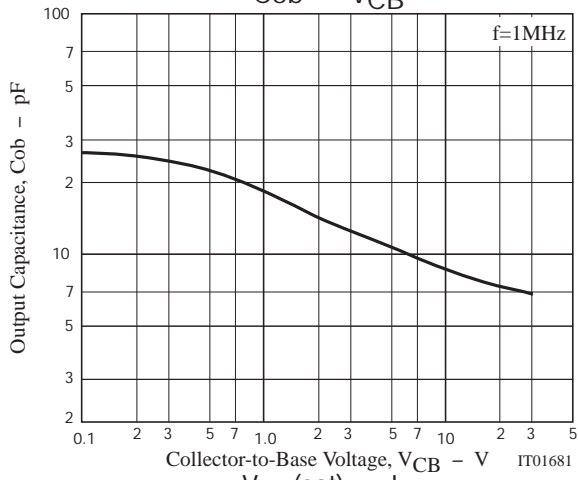
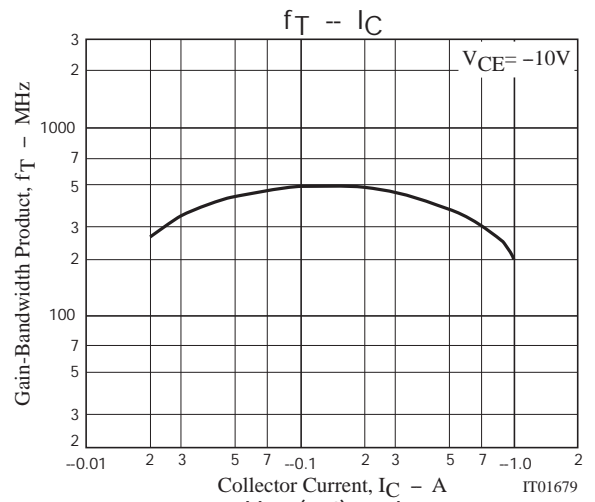
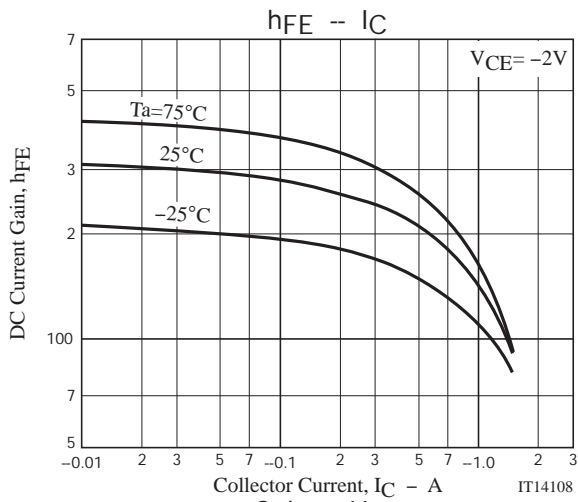
unit : mm (typ)

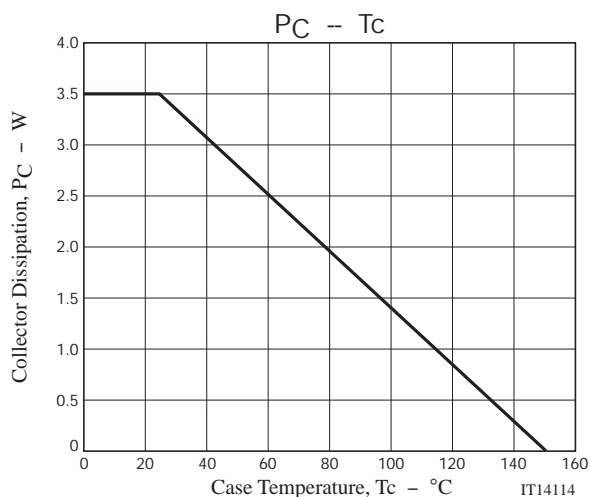
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Switching Time Test Circuit







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