


SANYO Semiconductors

DATA SHEET

MCH6122 — PNP Epitaxial Planar Silicon Transistor DC / DC Converter Amplifier

Applications

- Relay drivers, lamp drivers, motor drivers, charger circuit.

Features

- Adoption of MBIT process.
- High current capacitance.
- Low collector-to-emitter saturation voltage.
- High speed switching.
- Ultrasmall-sized package permitting applied sets to be made small and slim (0.85mm).
- High allowable power dissipation.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		-30	V
Collector-to-Emitter Voltage	VCEO		-30	V
Emitter-to-Base Voltage	VEBO		-5	V
Collector Current	IC		-3	A
Collector Current (Pulse)	ICP		-5	A
Base Current	IB		-600	mA
Collector Dissipation	PC	When mounted on ceramic substrate (600mm ² ×0.8mm)	1	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Marking : AY

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MCH6122

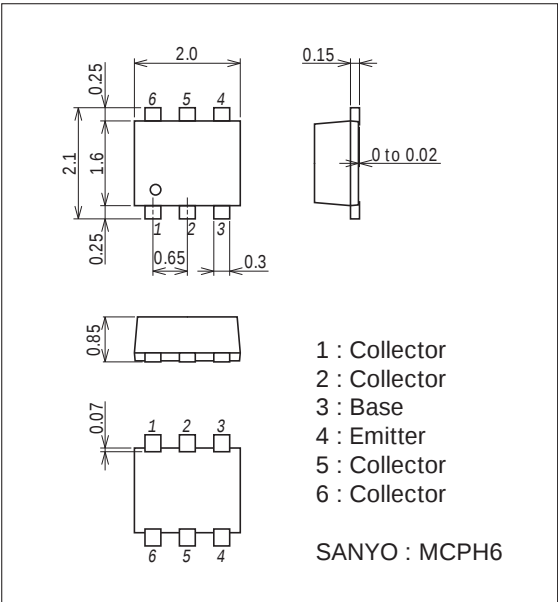
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	ICBO	VCE= -30V, IE=0A			-0.1	μA
Emitter Cutoff Current	IEBO	VEB= -4V, IC=0A			-0.1	μA
Collector Cutoff Current	IECO	VEC= -4.5V, IB=0A			-1	μA
DC Current Gain	hFE	VCE= -2V, IC= -500mA	200		560	
Gain-Bandwidth Product	fT	VCE= -10V, IC= -500mA		400		MHz
Output Capacitance	Cob	VCE= -10V, f=1MHz		25		pF
Collector-to-Emitter Saturation Voltage	VCE(sat)1	IC= -1.5A, IB= -30mA		-180	-270	mV
	VCE(sat)2	IC= -1.5A, IB= -75mA		-120	-180	mV
Base-to-Emitter Saturation Voltage	VBE(sat)	IC= -1.5A, IB= -30mA		-0.83	-1.2	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	IC= -10μA, IE=0A	-30			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	IC= -1mA, RBE=∞	-30			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	IE= -10μA, IC=0A	-5			V
Turn-On Time	ton	See specified Test Circuit.		50		ns
Storage Time	tstg	See specified Test Circuit.		270		ns
Fall Time	tF	See specified Test Circuit.		27		ns

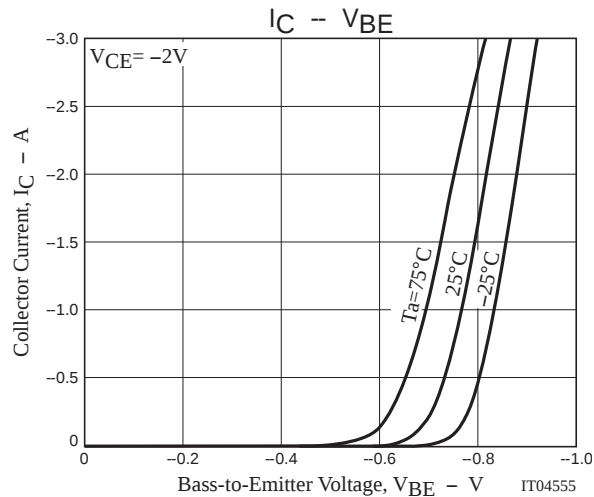
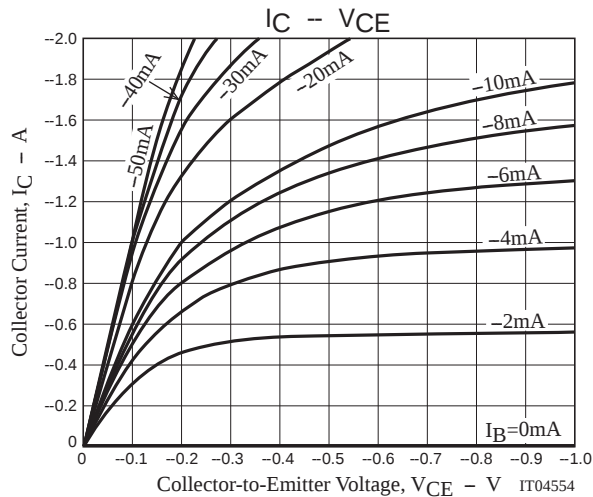
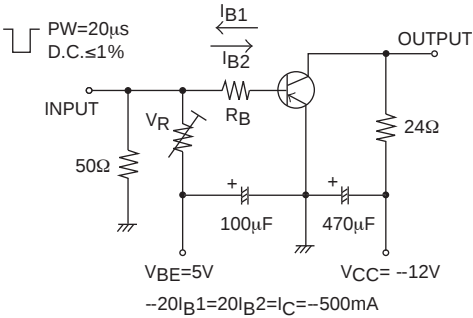
Package Dimensions

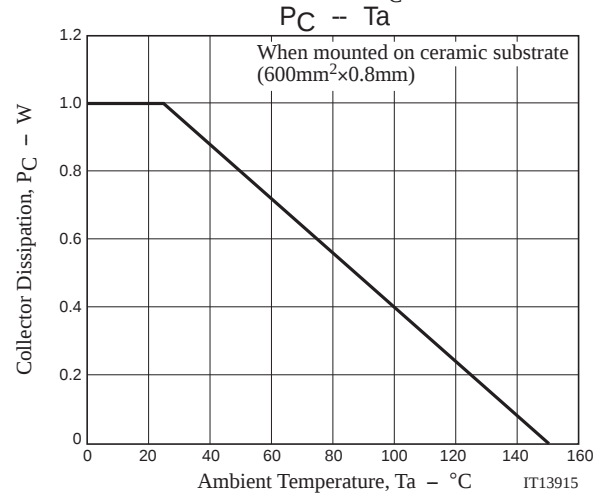
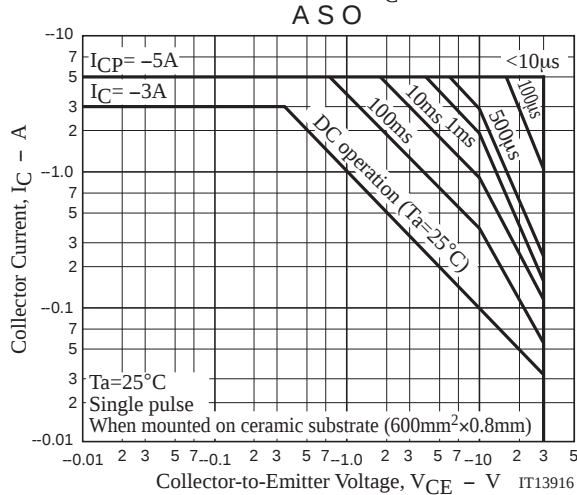
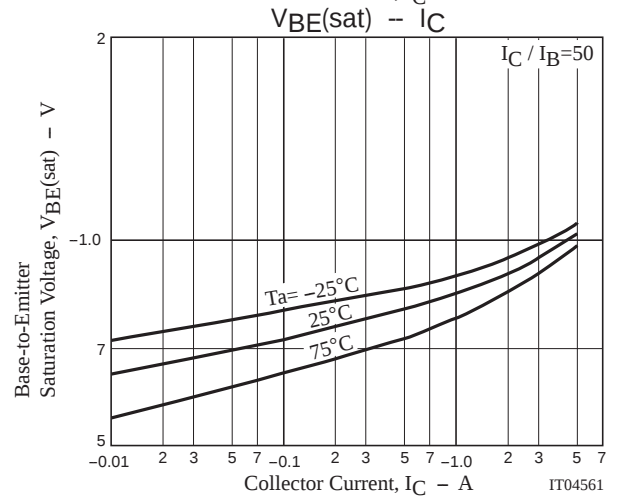
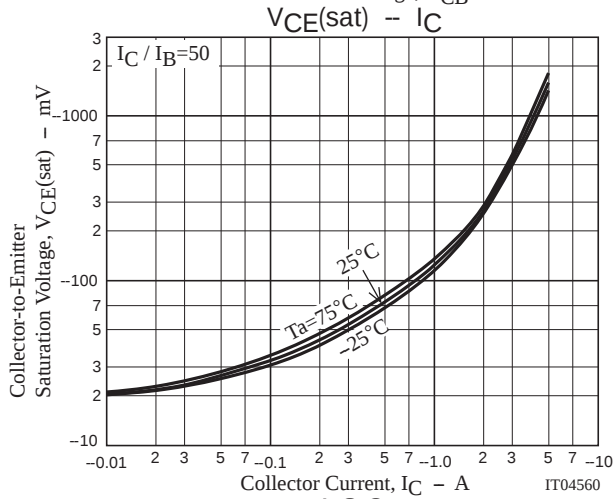
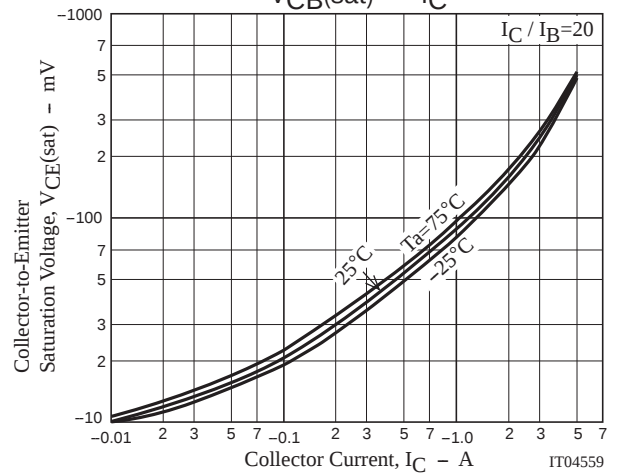
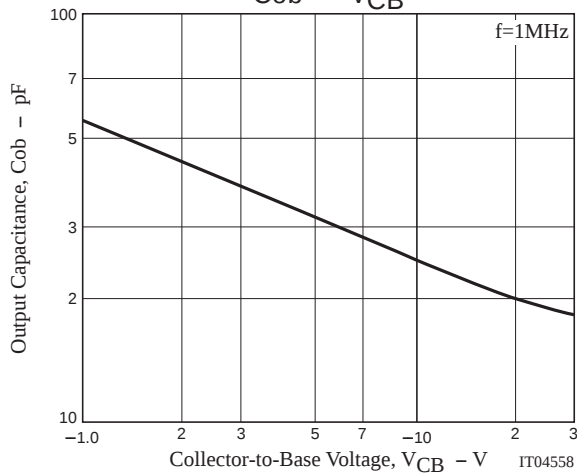
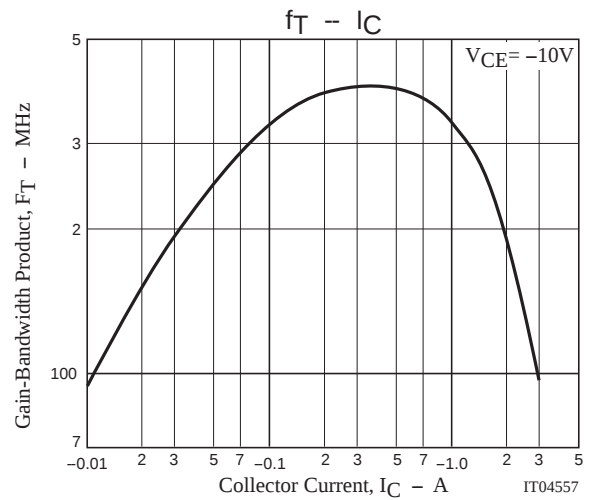
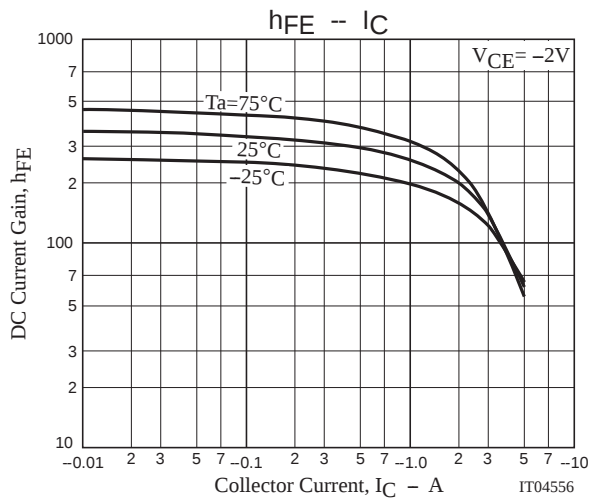
unit : mm (typ)

7022A-007



Switching Time Test Circuit





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