

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	V _{CBO}		-30	V
Collector-to-Emitter Voltage	VCEO		-30	V
Emitter-to-Base Voltage	VEBO		-5	V
Collector Current	IC		-3	А
Collector Current (Pulse)	ICP		-5	А
Base Current	ΙΒ		-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

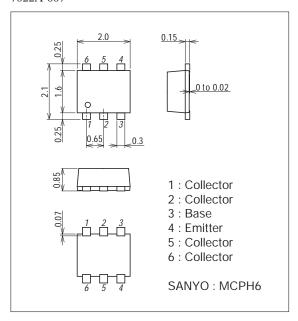
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Electrical Characteristics at Ta=25°C

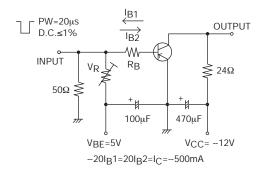
Parameter	Symbol	Conditions	Ratings			Linit
			min	typ	max	Unit
Collector Cutoff Current	ICBO	VCB= -30V, IE=0A			-0.1	μΑ
Emitter Cutoff Current	IEBO	V _{EB} = -4V, I _C =0A			-0.1	μΑ
Collector Cutoff Current	IECO	V _{EC} = -4.5V, I _B =0A			-1	μΑ
DC Current Gain	hFE	V _{CE} = -2V, I _C = -500mA	200		560	
Gain-Bandwidth Product	fŢ	V _{CE} = -10V, I _C = -500mA		400		MHz
Output Capacitance	Cob	V _{CB} = -10V, f=1MHz		25		pF
Collector-to-Emitter Saturation Voltage	V _{CE} (sat)1	I _C = -1.5A, I _B = -30mA		-180	-270	mV
	V _{CE} (sat)2	I _C = -1.5A, I _B = -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	I _C = -10μA, I _E =0A	-30			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	IC= -1mA, RBE=∞	-30			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	I _E = -10μA, I _C =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

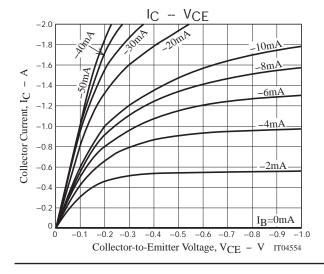
Package Dimensions

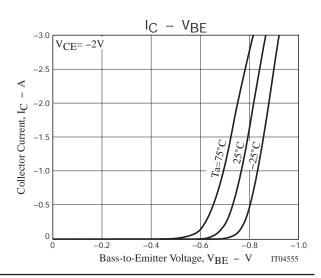
unit : mm (typ) 7022A-007

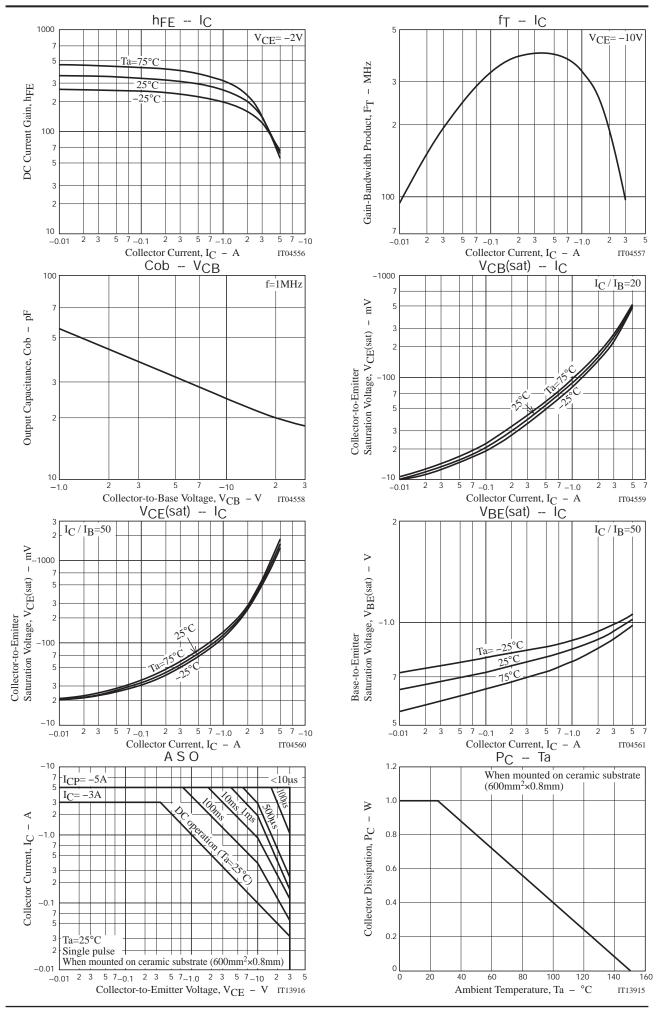


Switching Time Test Circuit









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