



SCH2201

— NPN Epitaxial Planar Silicon Transistor

Switching, Driver Applications

Applications

- Low-frequency General-Purpose amplifier, high-speed switching, motor drivers, muting.

Features

- Composite type with 2 NPN transistors contained in a single package, facilitating high-density mounting.
- Ultrasmall package permitting applied sets to be small and slim.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}		20	V
Collector-to-Emitter Voltage	V _{CEO}		15	V
Emitter-to-Base Voltage	V _{EBO}		5	V
Collector Current	I _C		0.8	A
Collector Current (Pulse)	I _{CP}		1.6	A
Collector Dissipation	P _C	Mounted on a ceramic board (600mm ² X0.8mm) 1unit	0.4	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 _{CB0}	V _{CB} =12V, I _E =0			100	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} =4V, I _C =0			100	nA
DC Current Gain	h _{FE}	V _{CE} =2V, I _C =50mA	300		800	
Gain-Bandwidth Product	f _T	V _{CE} =2V, I _C =50mA		440		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz		4		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =400mA, I _B =20mA		140	280	mV
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =400mA, I _B =20mA		0.8	1.2	V
Collector-to-Base Breakdown Voltage	V _{(BR)CBO}	I _C =10μA, I _E =0	20			V
Collector-to-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =1mA, R _{BE} =∞	15			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	5			V

Marking : EE

Continued on next page.

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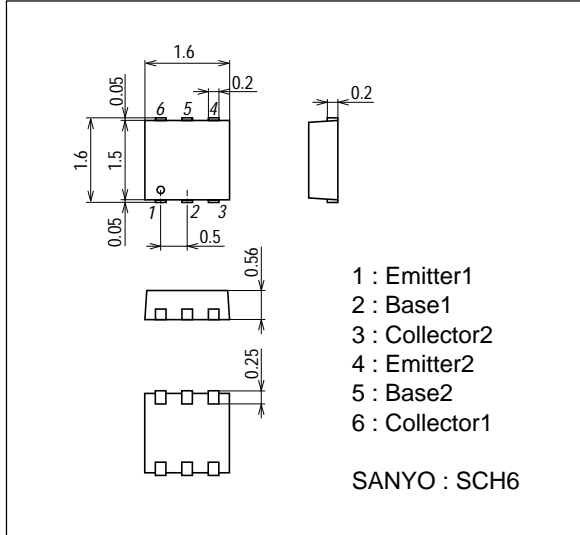
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Turn-ON Time	t_{on}	See specified test circuit.		30		ns
Storage Time	t_{stg}	See specified test circuit.		165		ns
Fall Time	t_f	See specified test circuit.		25		ns

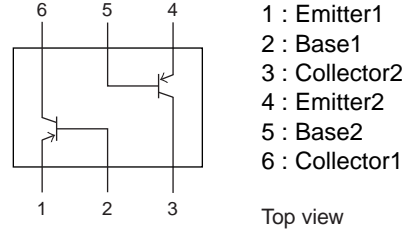
Package Dimensions

unit : mm

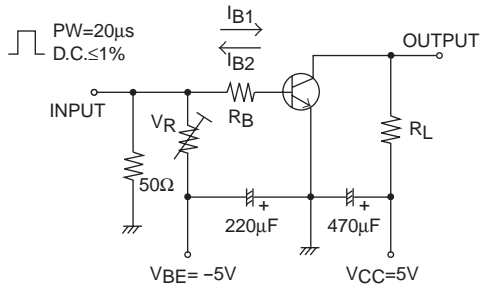
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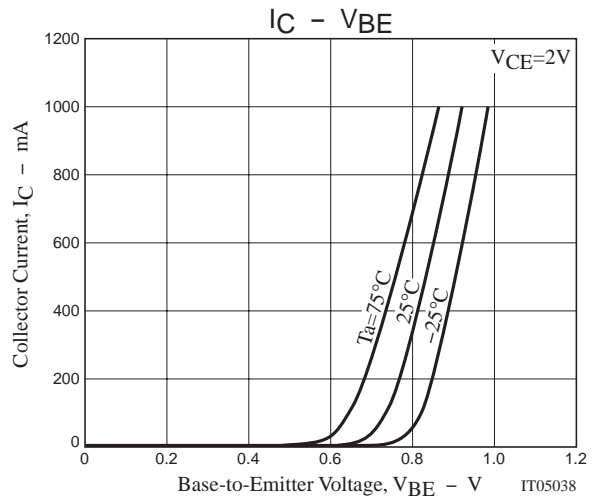
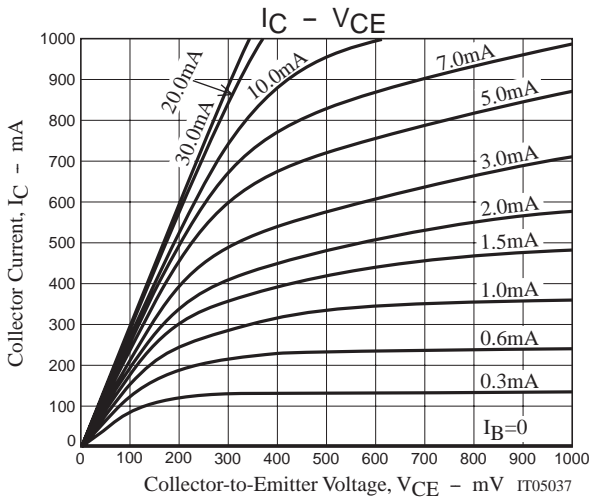
Electrical Connection



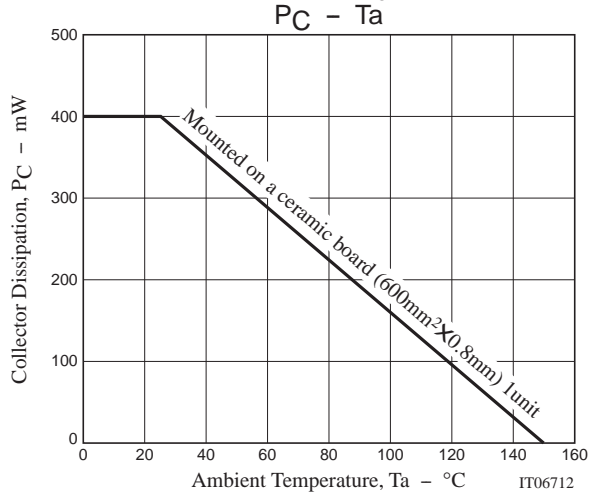
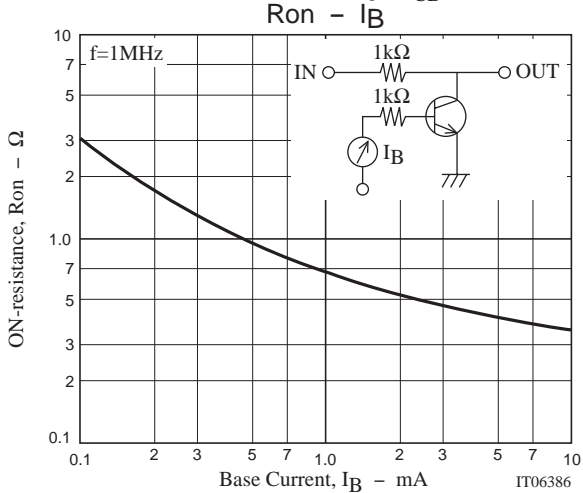
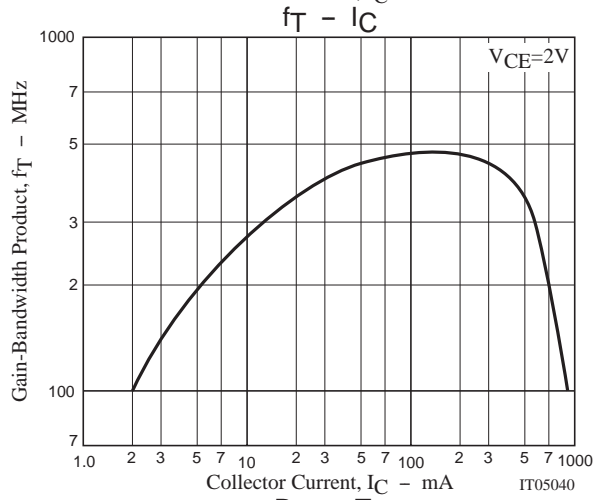
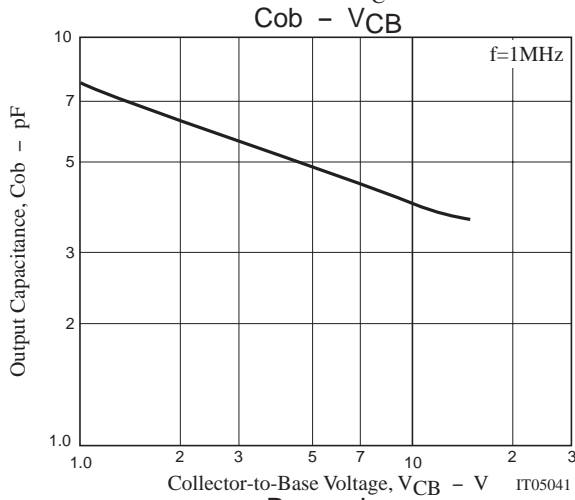
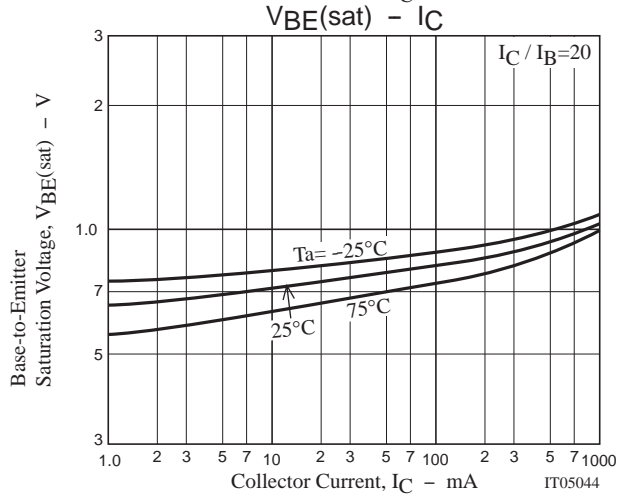
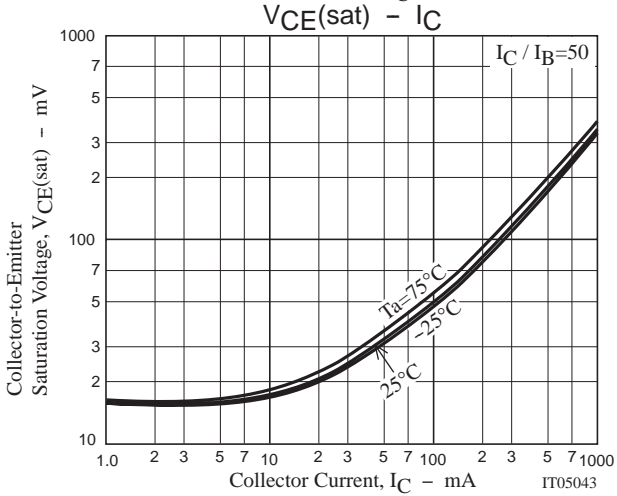
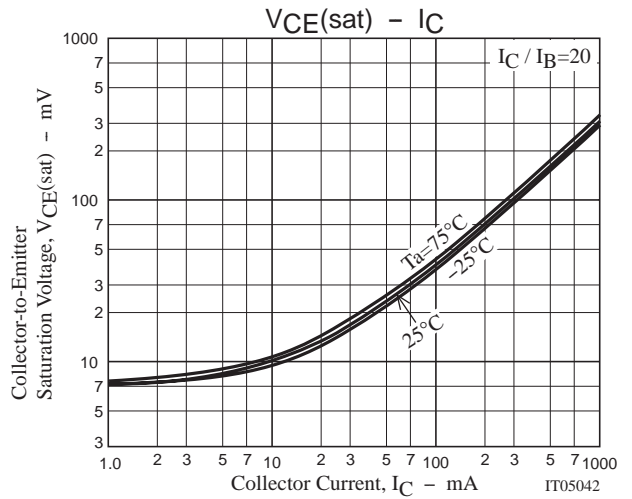
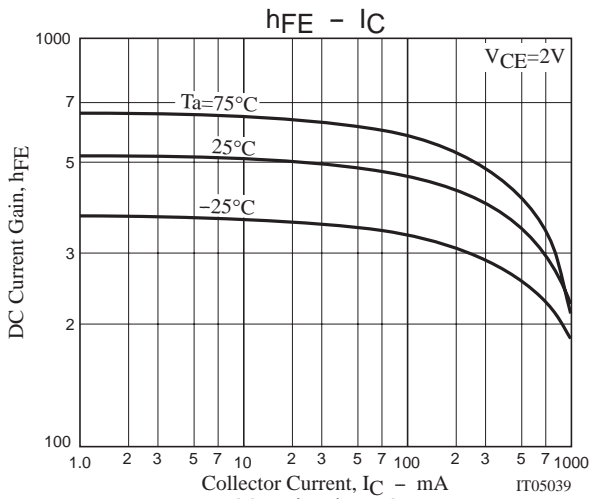
Switching Time Test Circuit



$$I_C = 20I_{B1} = -20I_{B2} = 400mA$$



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