



NPN Epitaxial Planar Silicon Transistor

08C02SS — Low-Frequency General-Purpose Amplifier Applications

Applications

- Low-frequency Amplifier, high-speed switching, DC / DC converter, muting circuit.

Features

- Large current capacitance.
- Low collector-to-emitter saturation voltage (resistance): $R_{CE(sat)}$ typ=240m Ω [$I_C=1A$, $I_B=50mA$].
- Ultrasmall package facilitates miniaturization in end products.

Specifications

Absolute Maximum Ratings at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		15	V
Collector-to-Emitter Voltage	V_{CEO}		8	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 glass epoxy board (20X30X1.6mm)	200	mW
Junction Temperature	T_j		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

Electrical Characteristics at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=12V$, $I_E=0A$			100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4V$, $I_C=0A$			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}	$V_{CB}=10V$, $f=1MHz$		6		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=30mA$, $I_B=0.6mA$		17	40	mV
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=400mA$, $I_B=20mA$		110	250	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=400mA$, $I_B=20mA$		0.9	1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A$, $I_E=0A$	15			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA$, $R_{BE}=\infty$	8			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A$, $I_C=0A$	5			V

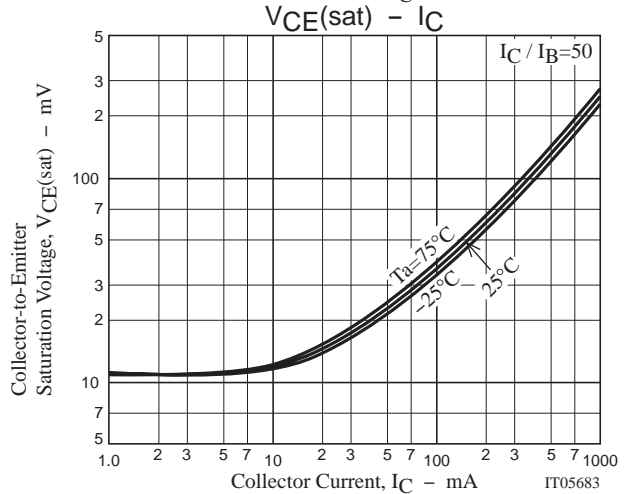
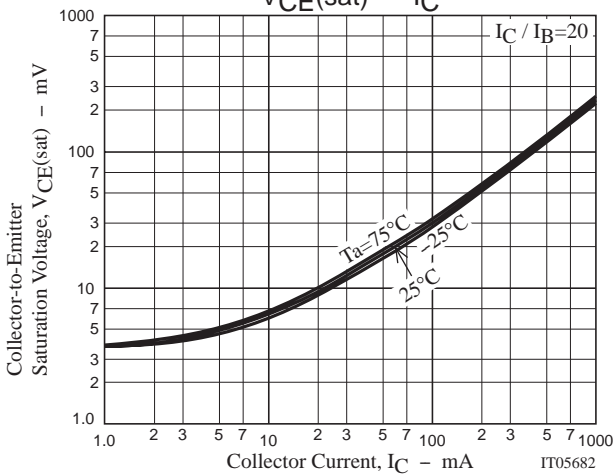
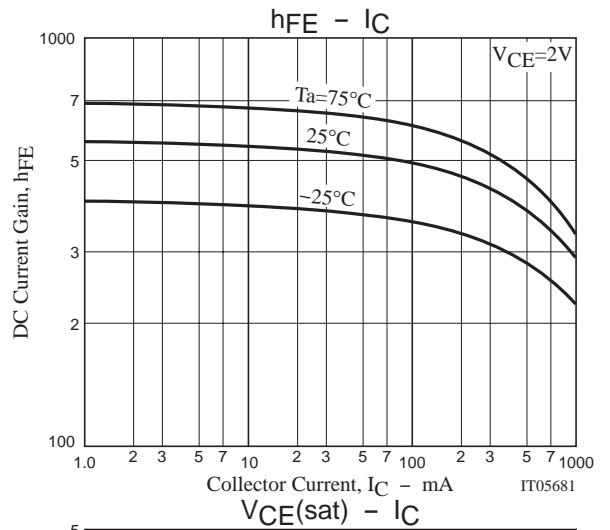
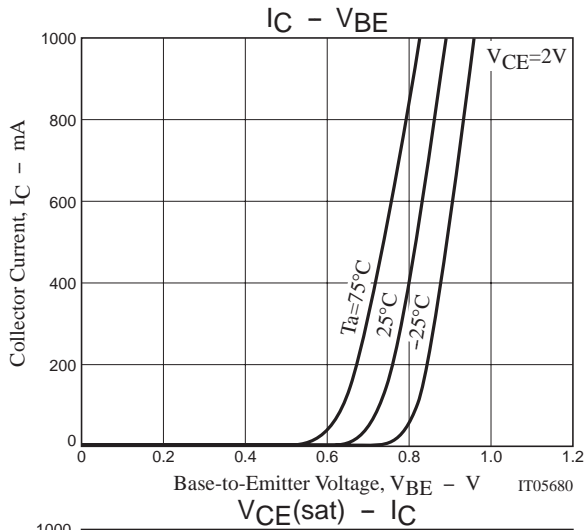
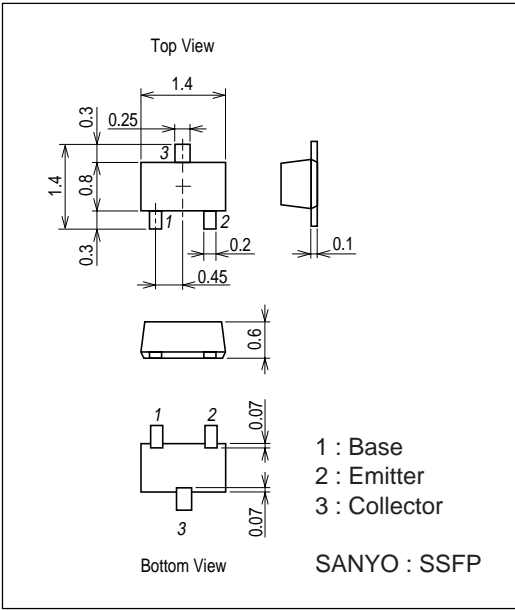
Marking : YT

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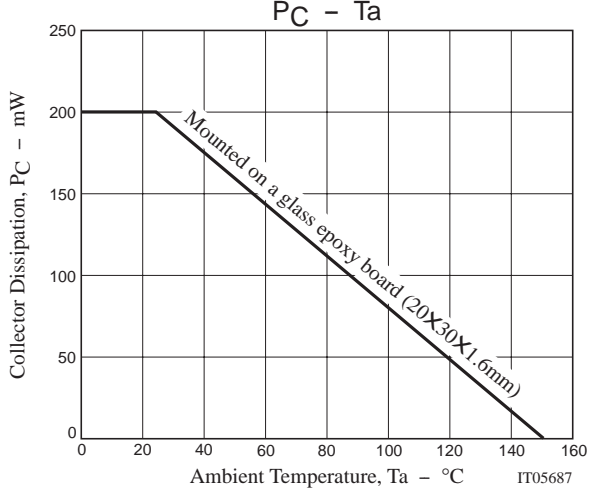
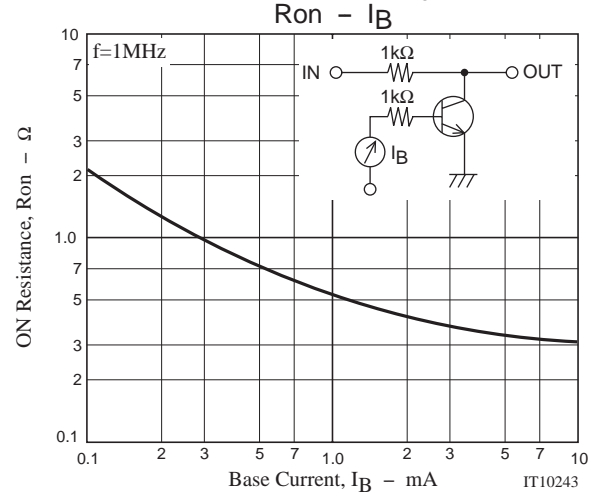
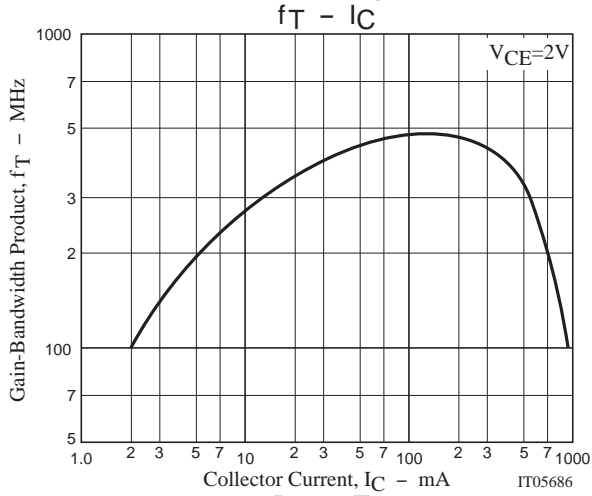
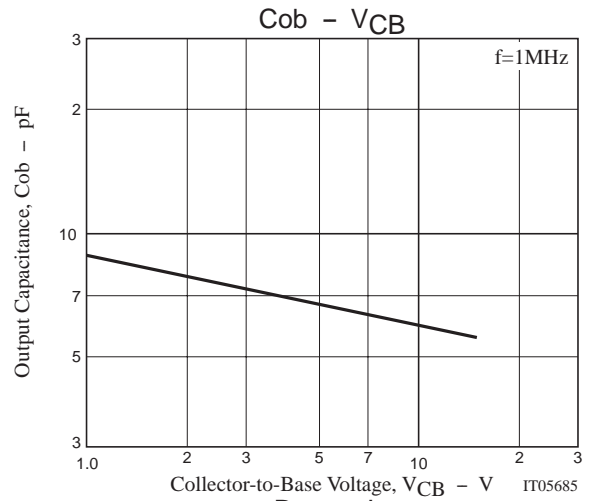
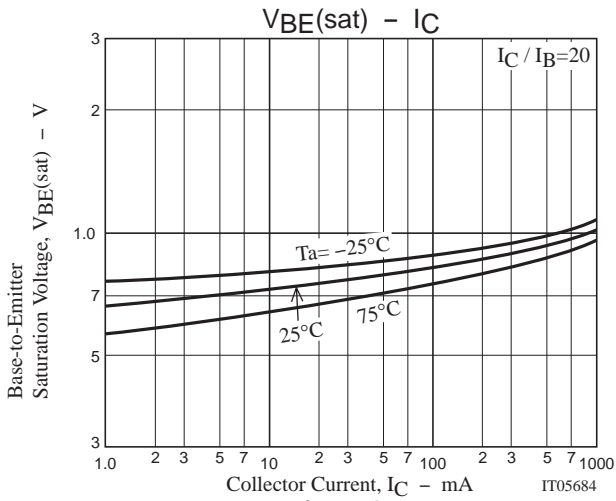
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Package Dimensions

unit : mm
7029-002



08C02SS



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