



SANYO Semiconductors

DATA SHEET

2SA1965-S

 — PNP Epitaxial Planar Silicon Transistor
Muting Circuit Applications

Features

- Ultrasmall-sized package permitting applied sets to be made small and slim.
- Small output capacitance.
- Low collector-to-emitter saturation voltage.
- Low ON resistance.

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		-15	V
Collector-to-Emitter Voltage	V_{CEO}		-10	V
Emitter-to-Base Voltage	V_{EBO}		-5	V
Collector Current	I_C		-100	mA
Collector Current (Pulse)	I_{CP}		-200	mA
Base Current	I_B		-20	mA
Collector Dissipation	P_C		150	mW
Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=-12\text{V}, I_E=0\text{A}$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-4\text{V}, I_C=0\text{A}$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=-2\text{V}, I_C=-5\text{mA}$	200		600	
Gain-Bandwidth Product	f_T	$V_{CE}=-5\text{V}, I_C=-10\text{mA}$		600		MHz
Output Capacitance	C_{ob}	$V_{CB}=-10\text{V}, f=1\text{MHz}$		5.0		pF

Marking : KA

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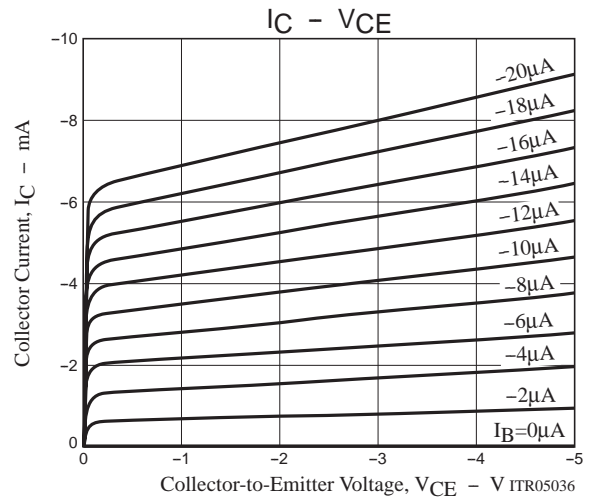
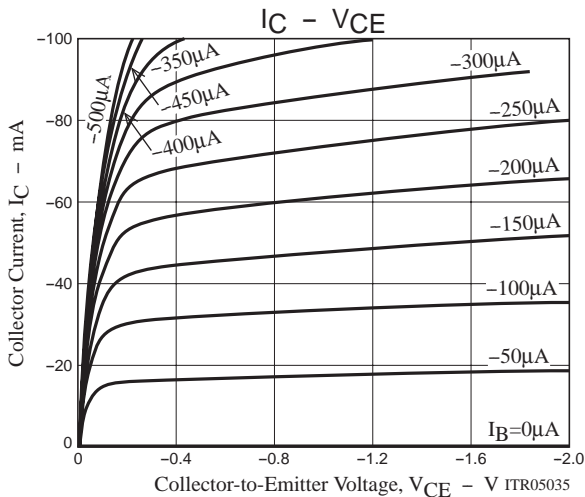
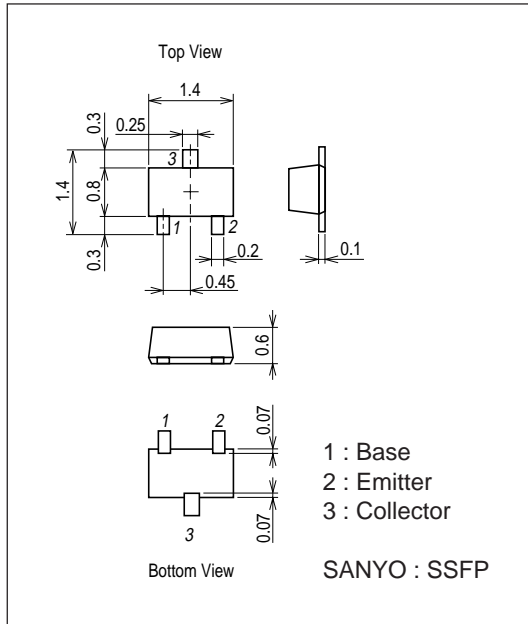
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}$, $I_B = -1\text{mA}$		-16	-35	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -10\text{mA}$, $I_B = -1\text{mA}$		-0.75	-1.1	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}$, $I_E = 0\text{A}$	-15			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}$, $R_{BE} = \infty$	-10			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}$, $I_C = 0\text{A}$	-5			V
On Resistance	R_{on}	$I_B = -3\text{mA}$, $f = 1\text{MHz}$		1.2		Ω

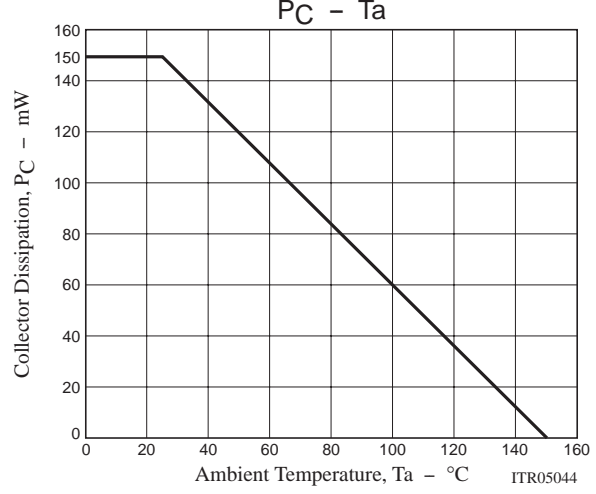
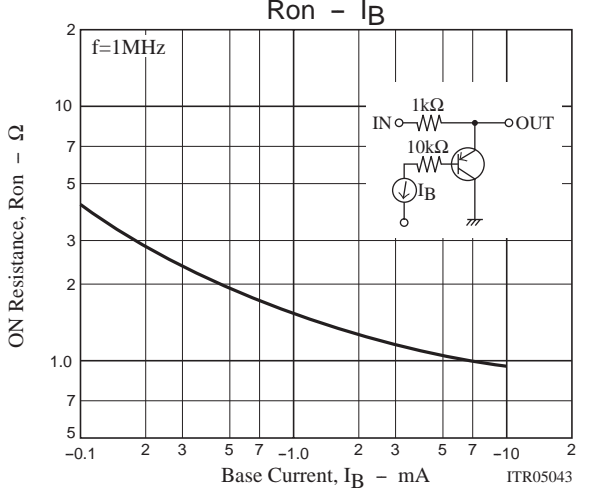
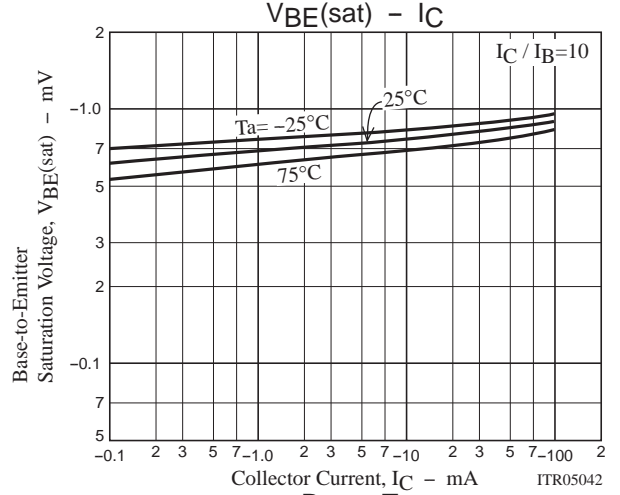
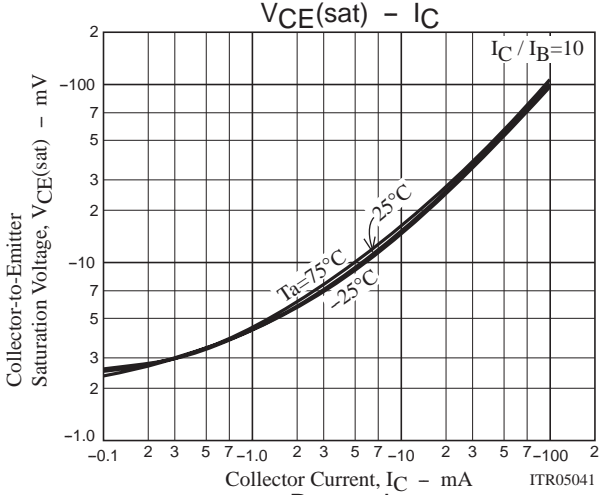
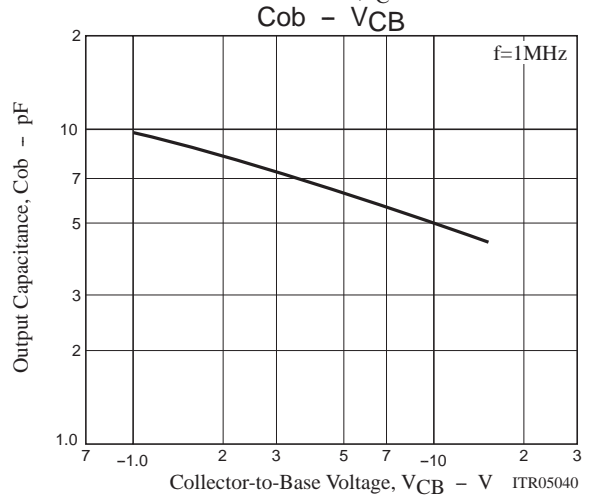
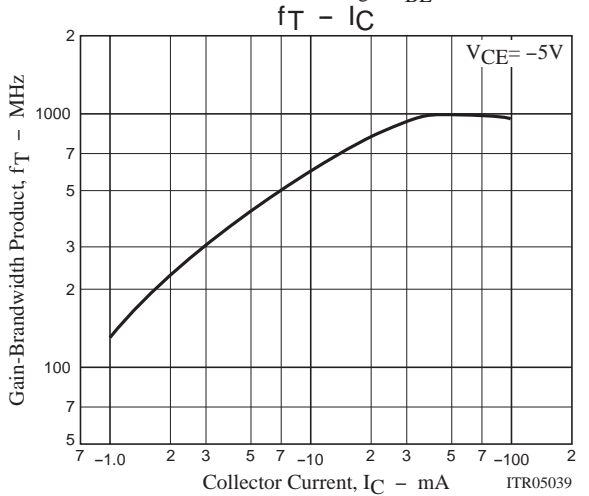
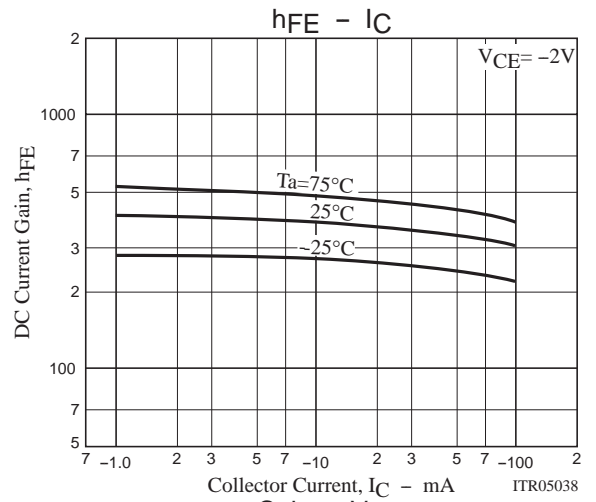
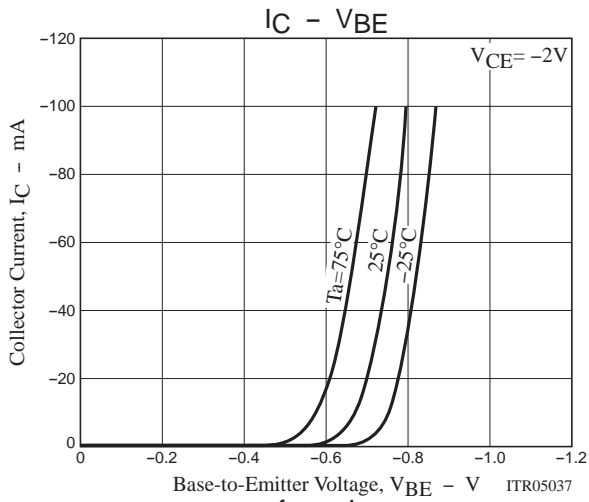
Package Dimensions

unit : mm (typ)

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