Ordering number : ENA1086

SANYO Semiconductors
DATA SHEET

2SC4919-S — NPN 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 Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		25	V
Collector-to-Emitter Voltage	V_{CEO}		15	V
Emitter-to-Base Voltage	V_{EBO}		15	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	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=15V, I_E=0A			0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V, I_C=0A			0.1	μA
DC Current Gain	h_{FE}	V_{CE}=2V, I_C=5mA	800		3200	
Gain-Bandwidth Product	f_T	V_{CE}=5V, I_C=10mA		240		MHz
Output Capacitance	Cob	V_{CB}=10V, f=1MHz		1.4		pF

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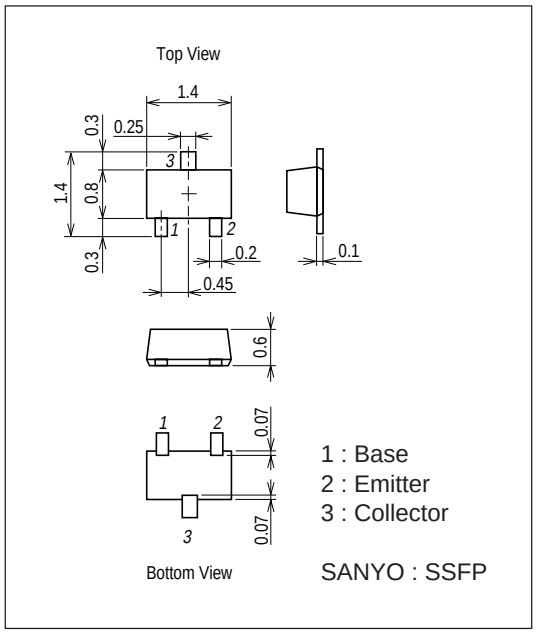
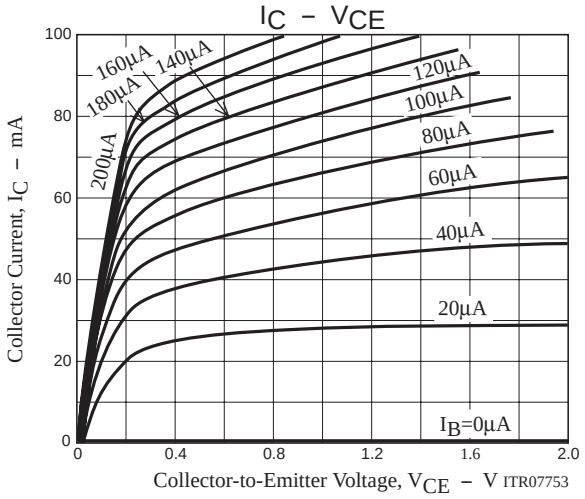
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	V_{CE}(sat)	I_C=10mA, I_B=1mA		14	30	mV
Base-to-Emitter Saturation Voltage	V_{BE}(sat)	I_C=10mA, I_B=1mA		0.74	1.1	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=10μA, I_E=0A	25			V
Collector-to-Emitter 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=0A	15			V
On Resistance	Ron	I_B=3mA, f=1MHz		0.9		Ω

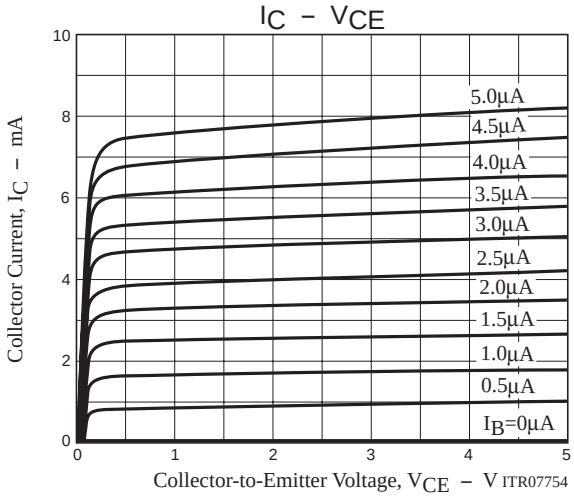
Package Dimensions

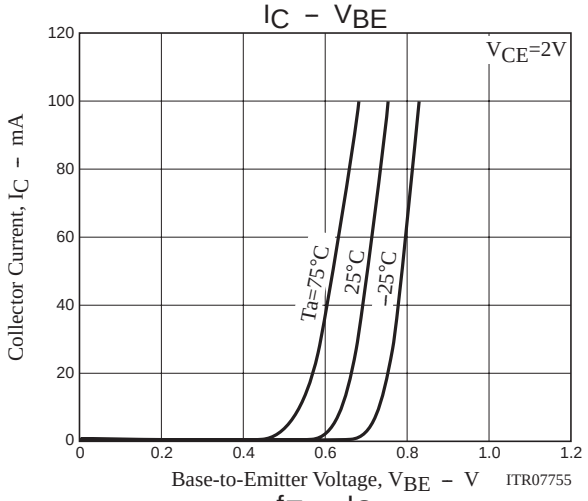
unit : mm (typ)

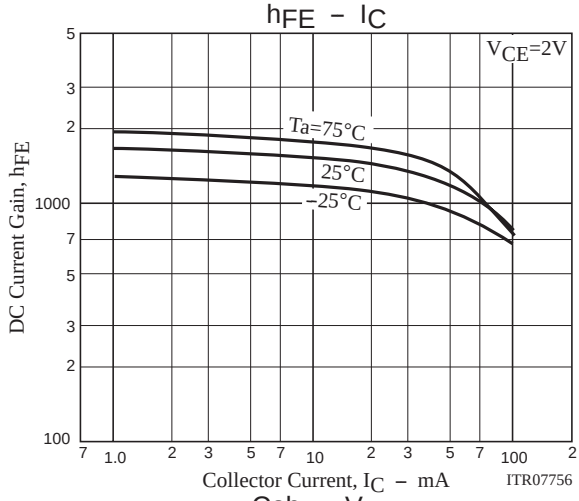
7029-002

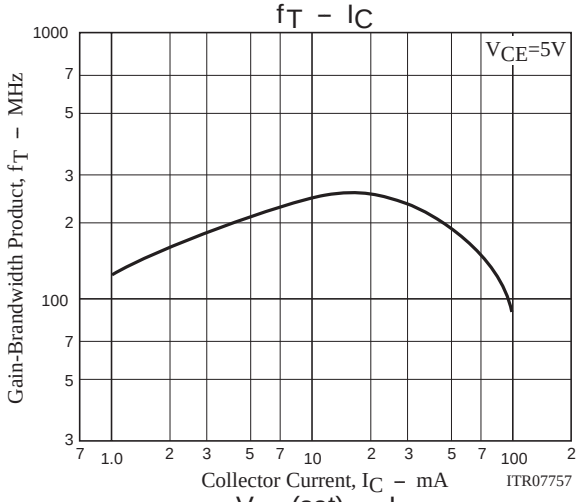


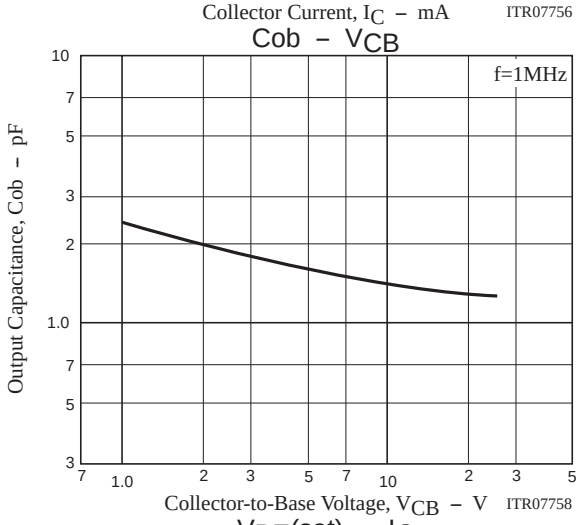


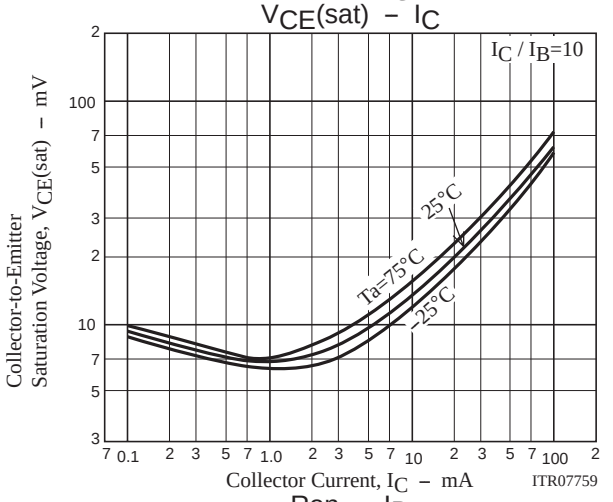


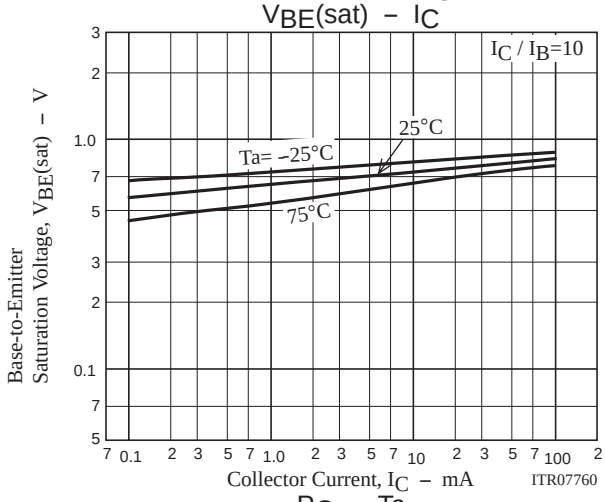

IC – VBE
VCE=2V
Ta=75°C
25°C
–25°C
Collector Current, IC – mA
Base-to-Emitter Voltage, VBE – V
ITR07755

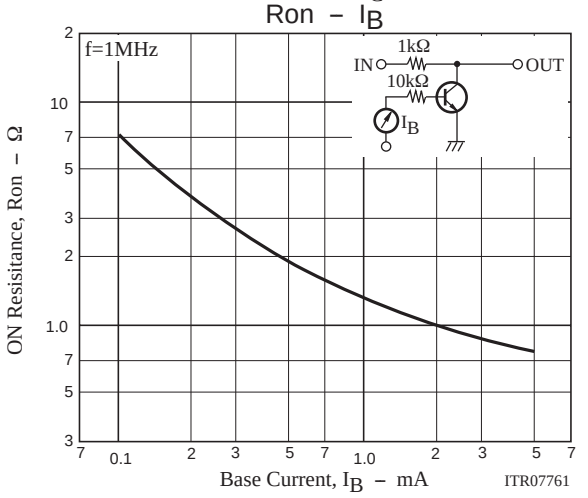

hFE – IC
VCE=2V
Ta=75°C
25°C
–25°C
DC Current Gain, hFE
Collector Current, IC – mA
ITR07756

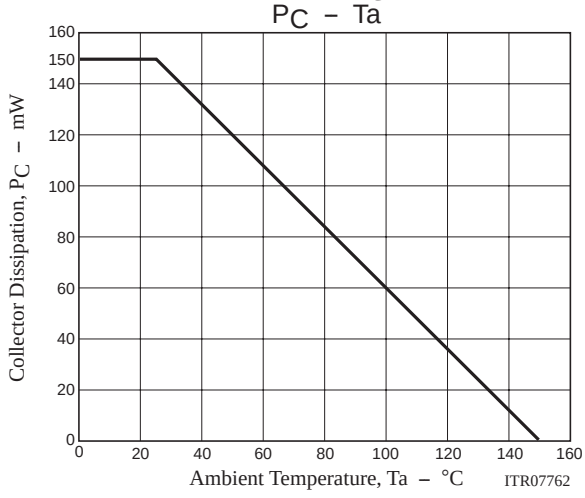

fT – IC
VCE=5V
Gain-Bandwidth Product, fT – MHz
Collector Current, IC – mA
ITR07757


Cob – VCB
f=1MHz
Output Capacitance, Cob – pF
Collector-to-Base Voltage, VCB – V
ITR07758


VCE(sat) – IC
IC / IB=10
25°C
Ta=75°C
–25°C
Collector-to-Emitter Saturation Voltage, VCE(sat) – mV
Collector Current, IC – mA
ITR07759


VBE(sat) – IC
IC / IB=10
25°C
Ta= –25°C
75°C
Base-to-Emitter Saturation Voltage, VBE(sat) – V
Collector Current, IC – mA
ITR07760


Ron – IB
f=1MHz
1kΩ
IN
OUT
10kΩ
IB
ON Resisitance, Ron – Ω
Base Current, IB – mA
ITR07761


PC – Ta
Collector Dissipation, PC – mW
Ambient Temperature, Ta – °C
ITR07762