Ordering number:EN3486

NPN Epitaxial Planar Silicon Transistor

2SC4695

Low-Frequency General-Purpose Amplifier, Muting Applications

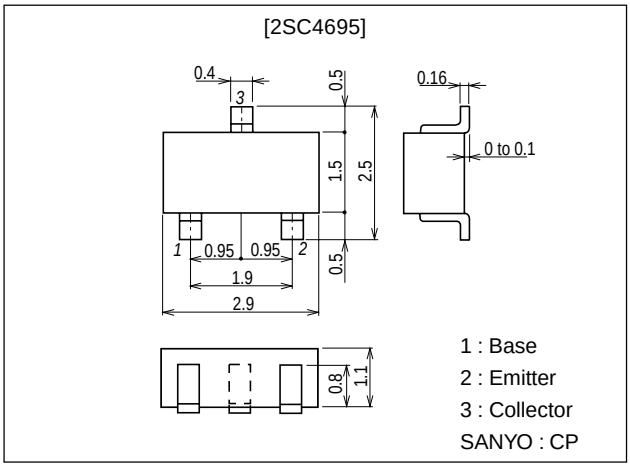
Features

- Adoption of FBET process.
- High DC current gain.
- High V_{EBO} (V_{EBO}≥25V).
- High reverse h_{FE} (150 typ).
- Small ON resistance [Ron=1Ω (I_B=5mA)].
- Very small-sized package permitting 2SC4695-applied sets to be made small and slim.

Package Dimensions

unit:mm

2018B



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		50	V
Collector-to-Emitter Voltage	V_{CEO}		20	V
Emitter-to-Base Voltage	V_{EBO}		25	V
Collector Current	I_C		500	mA
Collector Current (Pulse)	I_{CP}		800	mA
Base Current	I_B		100	mA
Collector Dissipation	P_C		250	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}=40V, I_E=0			0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=20V, I_C=0			0.1	μA
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=10mA	300		1200	
Gain-Bandwidth Product	f_T	V_{CE}=10V, I_C=10mA		250		MHz
Output Capacitance	C_{ob}	V_{CB}=10V, f=1MHz		3.6		pF

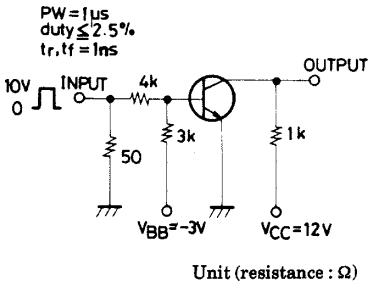
Marking :WT

SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters

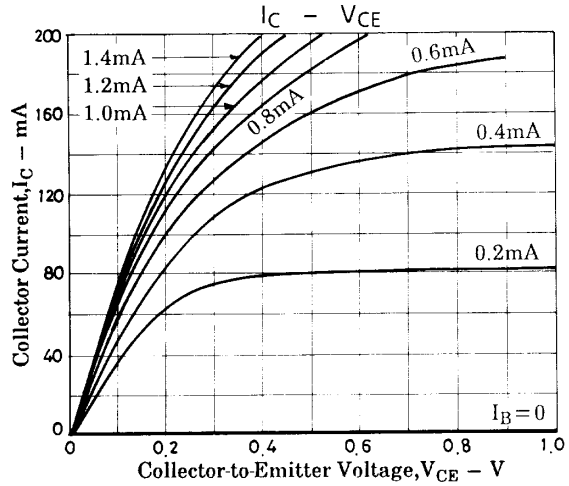
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

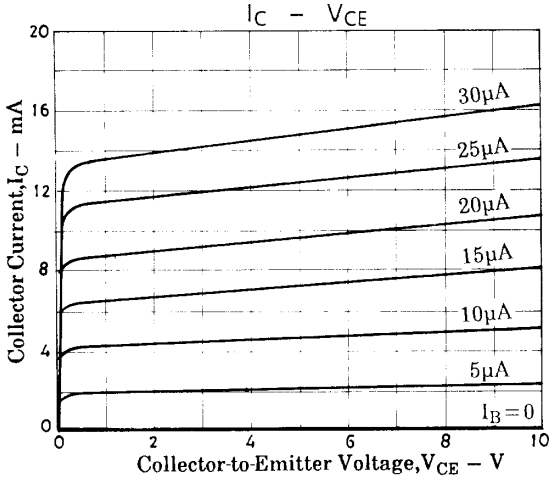
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=100mA, I_B=2mA		0.12	0.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=100mA, I_B=2mA		0.85	1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=10μA, I_E=0	50			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, R_{BE}=∞	20			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=10μA, I_C=0	25			V
Turn-ON Time	t_{on}	See specified Test Circuit.		135		ns
Storage Time	t_{stg}	See specified Test Circuit.		450		ns
Fall Time	t_f	See specified Test Circuit.		100		ns

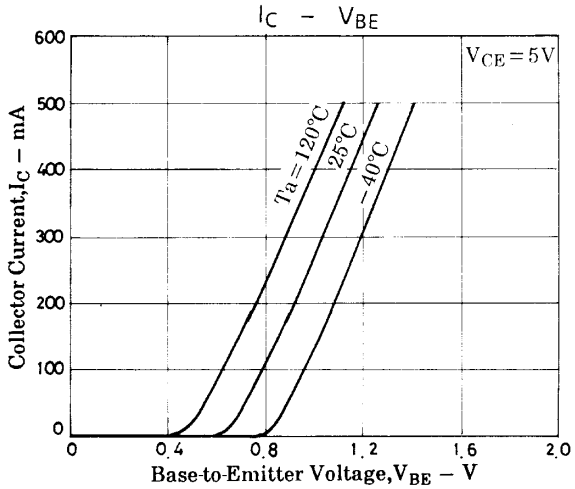
Switching Time Test Circuit

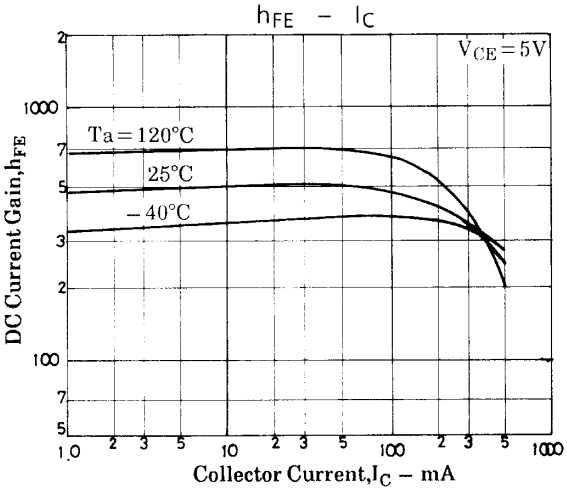


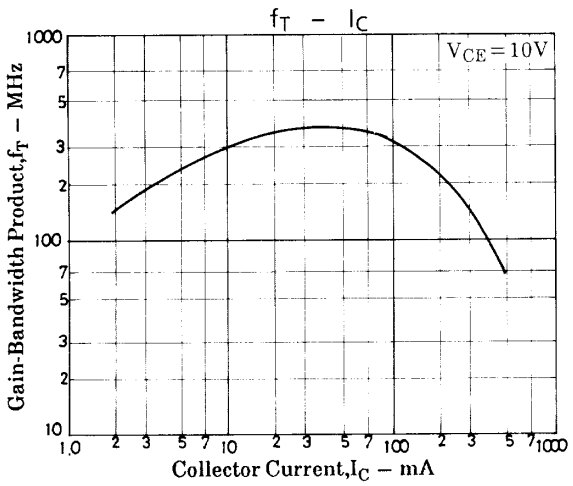
Unit (resistance : Ω)

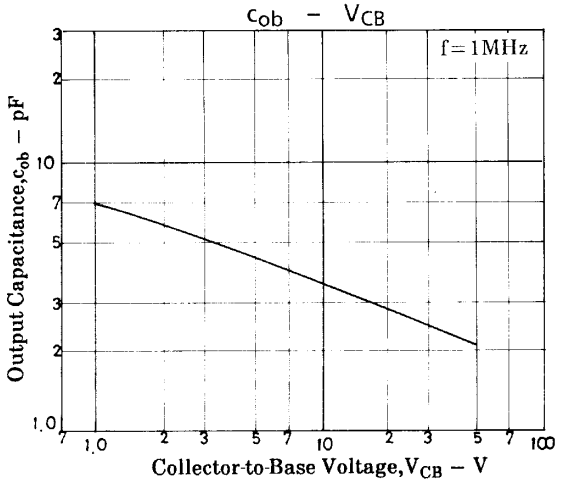


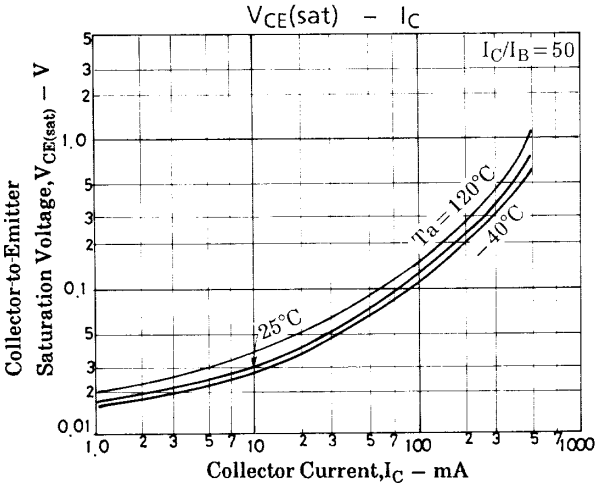


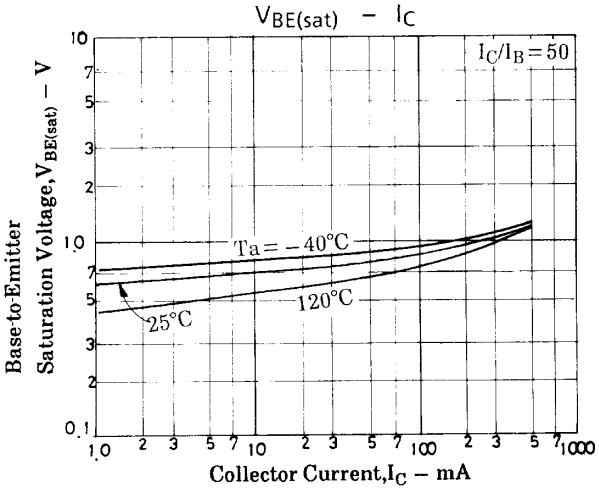


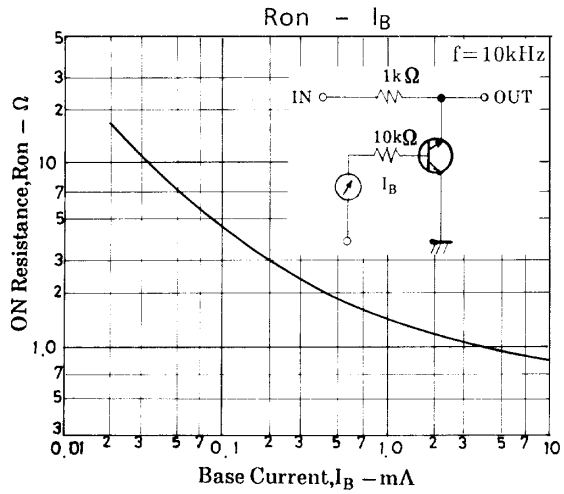


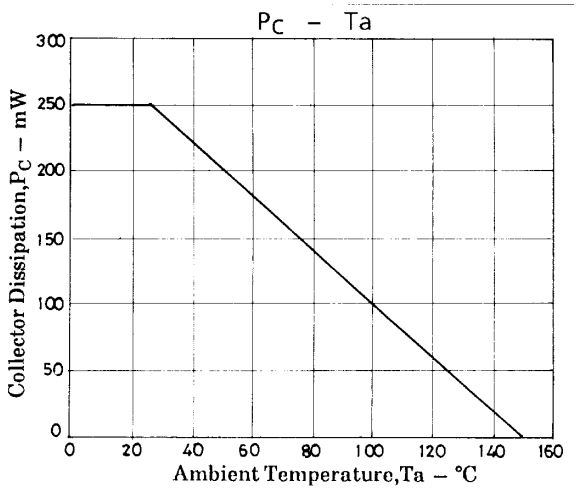

fT – IC
VCE=10V
Gain-Bandwidth Product,fT – MHz
Collector Current,IC – mA


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


VCE(sat) – IC
IC/IB=50
Collector-to-Emitter Saturation Voltage,VCE(sat) – V
Ta=120°C
–40°C
25°C
Collector Current,IC – mA


VBE(sat) – IC
IC/IB=50
Base-to-Emitter Saturation Voltage,VBE(sat) – V
Ta=–40°C
25°C
120°C
Collector Current,IC – mA


Ron – IB
f=10kHz
1kΩ
IN
OUT
10kΩ
IB
ON Resistance,Ron – Ω
Base Current,IB – mA


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