Ordering number: EN4661

SANYO

No.4661

2SA1881/2SC4983

PNP/NPN Epitaxial Planar Silicon Transistors

Low-Frequency General-Purpose Amp Applications

Applications

· AF power amp, medium-speed switching, small-sized motor drivers and LED drivers.

Features

· Large current capacity.
· Low collector to emitter saturation voltage.
· Very small-sized package permitting 2SA1881/2SC4983-applied sets to be made smaller and slimmer.

( ) : 2SA1881

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector-to-Base Voltage	V_{CBO}	(−)15	V
Collector-to-Emitter Voltage	V_{CEO}	(−)15	V
Emitter-to-Base Voltage	V_{EBO}	(−)5	V
Collector Current	I_C	(−)1	A
Collector Current(Pulse)	I_{CP}	(−)3	A
Base Current	I_B	(−)200	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

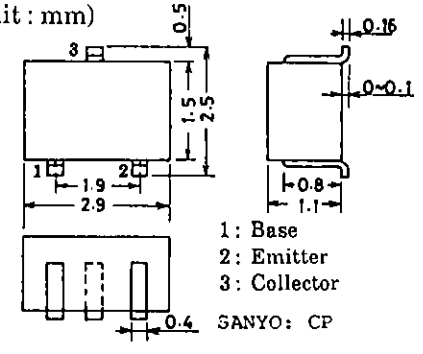
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=(−)12V, I_E=0			(−)100	nA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(−)4V, I_C=0			(−)100	nA
DC Current Gain	$h_{FE}(1)$	V_{CE}=(−)2V, I_C=(−)50mA	135※		600※	
	$h_{FE}(2)$	V_{CE}=(−)2V, I_C=(−)800mA	80			
Gain-Bandwidth Product	f_T	V_{CE}=(−)2V, I_C=(−)50mA		(300)200		MHz
C-E Saturation Voltage	$V_{CE(sat)}(1)$	I_C=(−)5mA, I_B=(−)0.5mA		(−)10	(−)25	mV
	$V_{CE(sat)}(2)$	I_C=(−)500mA, I_B=(−)25mA		(−)120	(−)240	mV
B-E Saturation Voltage	$V_{BE(sat)}$	I_C=(−)500mA, I_B=(−)25mA		(−)0.9	(−)1.2	V
Output Capacitance	Cob	V_{CB}=(−)10V, f=1MHz		(15)10		pF
C-B Breakdown Voltage	$V_{(BR)CBO}$	I_C=(−)10μA, I_E=0	(−)15			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_C=(−)1mA, R_{BE}=∞	(−)15			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	I_E=(−)10μA, I_C=0	(−)5			V

※ : The 2SA1881/2SC4983 are classified by 50mA h_{FE} as follows:

135 5 270	200 6 400	300 7 600

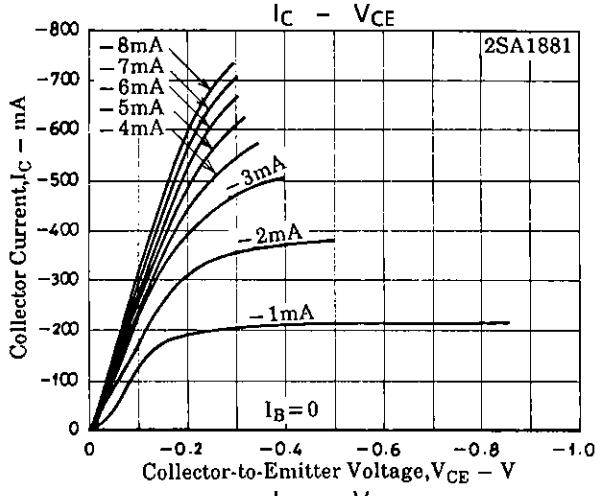
Marking : 2SA1881 : IS
2SC4983 : KN

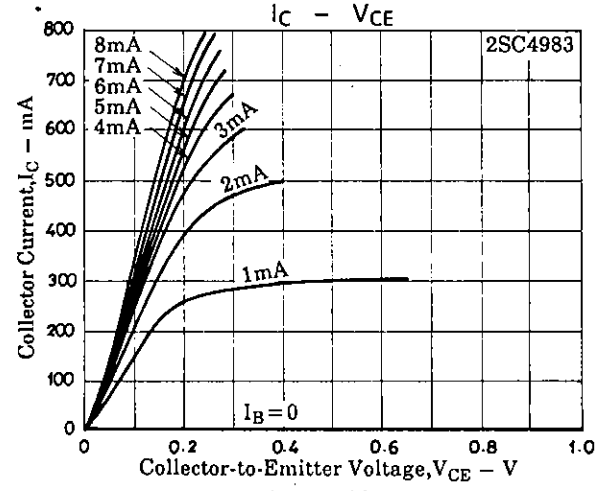
Package Dimensions 2018B
(unit : mm)

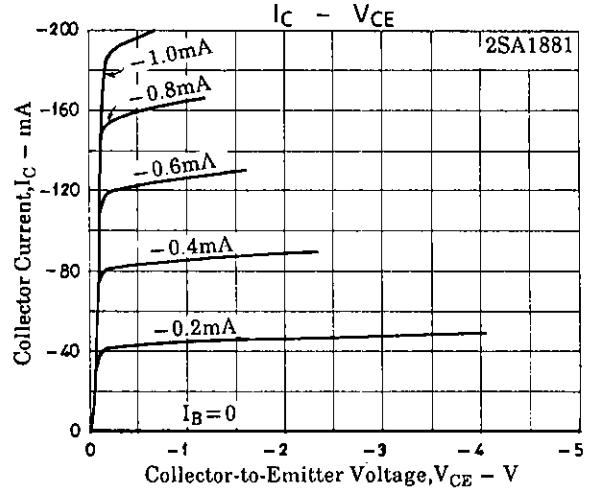


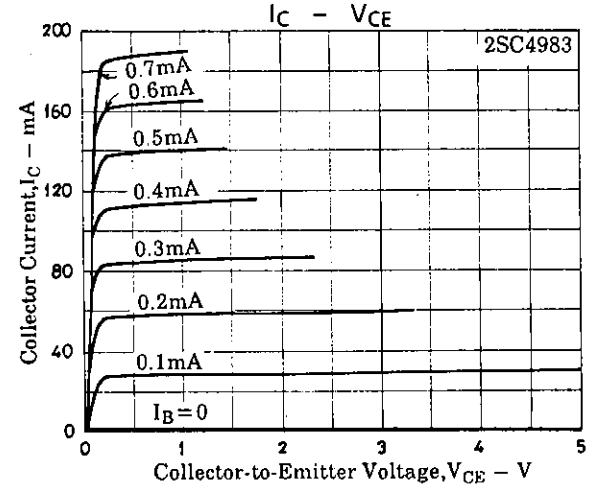
1 : Base
2 : Emitter
3 : Collector
SANYO : CP

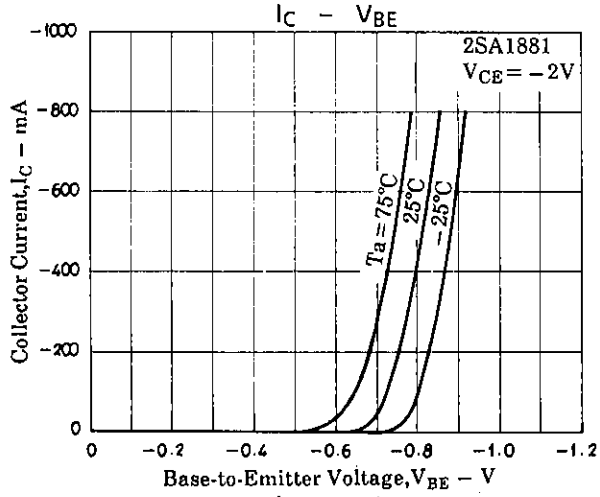
SANYO Electric Co.,Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

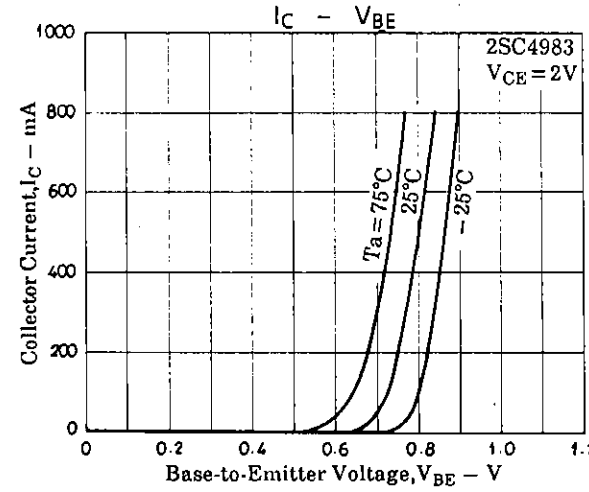

IC – VCE
2SA1881
–8mA
–7mA
–6mA
–5mA
–4mA
–3mA
–2mA
–1mA
IB=0
Collector Current,IC – mA
Collector-to-Emitter Voltage,VCE – V

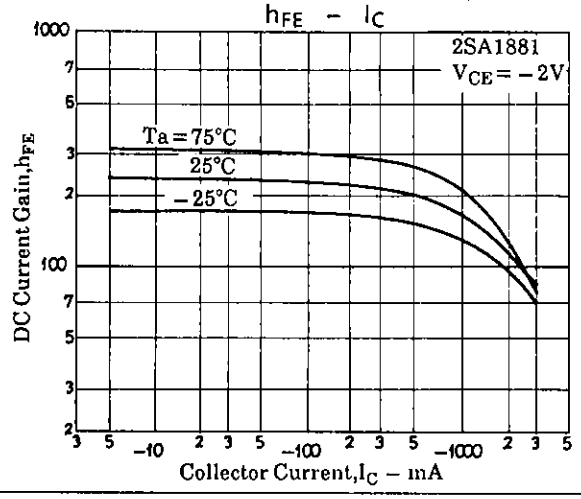

IC – VCE
2SC4983
8mA
7mA
6mA
5mA
4mA
3mA
2mA
1mA
IB=0
Collector Current,IC – mA
Collector-to-Emitter Voltage,VCE – V

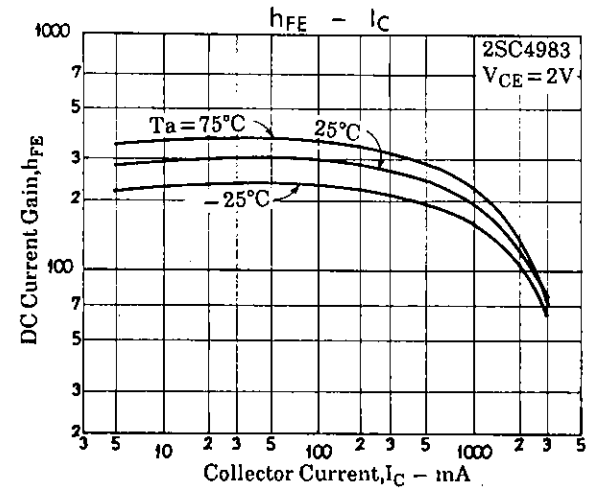

IC – VCE
2SA1881
–1.0mA
–0.8mA
–0.6mA
–0.4mA
–0.2mA
IB=0
Collector Current,IC – mA
Collector-to-Emitter Voltage,VCE – V


IC – VCE
2SC4983
0.7mA
0.6mA
0.5mA
0.4mA
0.3mA
0.2mA
0.1mA
IB=0
Collector Current,IC – mA
Collector-to-Emitter Voltage,VCE – V

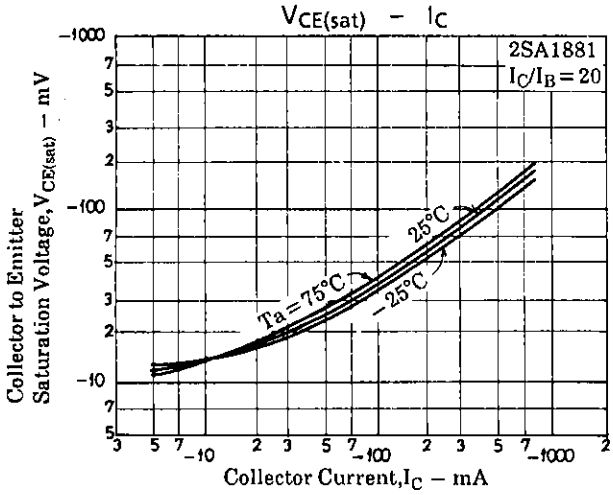

IC – VBE
2SA1881
VCE=–2V
Ta=75°C
25°C
–25°C
Collector Current,IC – mA
Base-to-Emitter Voltage,VBE – V


IC – VBE
2SC4983
VCE=2V
Ta=75°C
25°C
–25°C
Collector Current,IC – mA
Base-to-Emitter Voltage,VBE – V

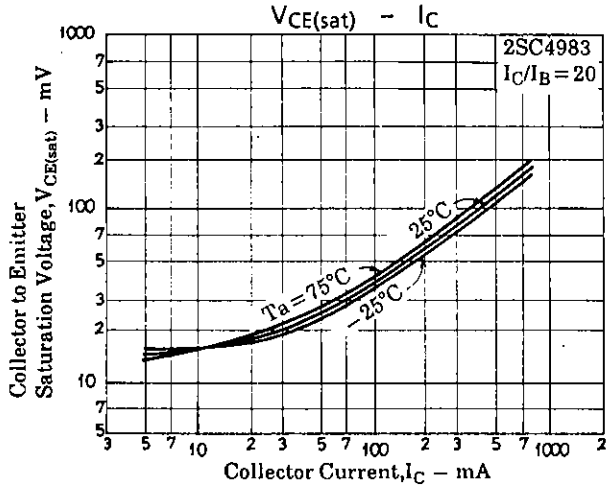

hFE – IC
2SA1881
VCE=–2V
Ta=75°C
25°C
–25°C
DC Current Gain,hFE
Collector Current,IC – mA


hFE – IC
2SC4983
VCE=2V
Ta=75°C
25°C
–25°C
DC Current Gain,hFE
Collector Current,IC – mA

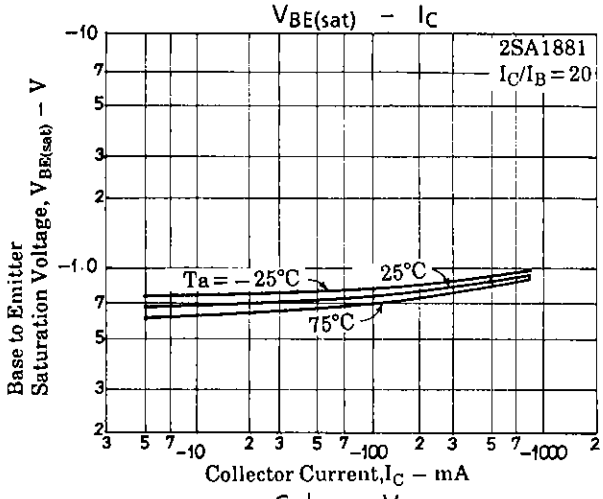
$V_{CE(sat)}$ – I_C



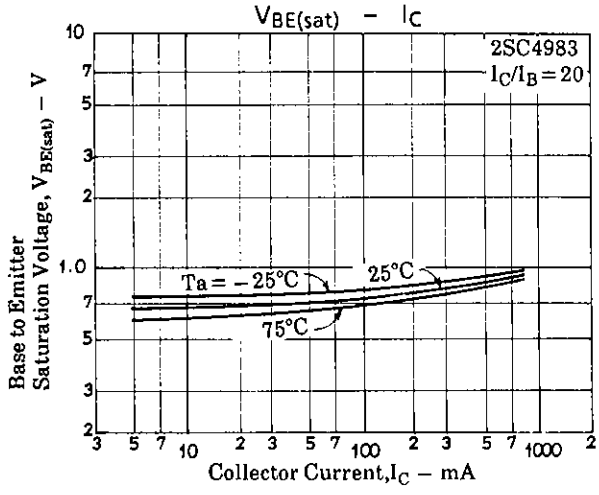
$V_{CE(sat)}$ – I_C



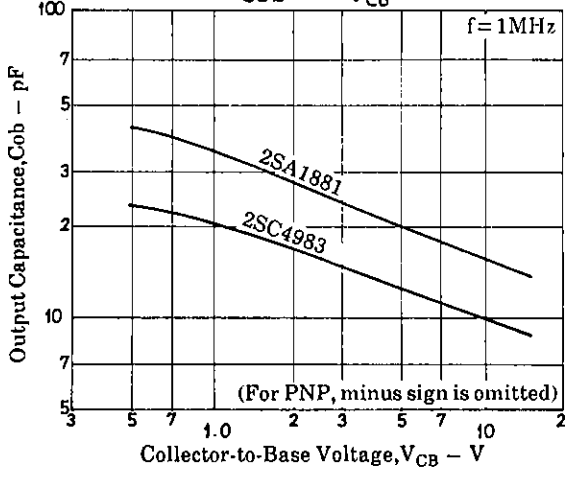
$V_{BE(sat)}$ – I_C



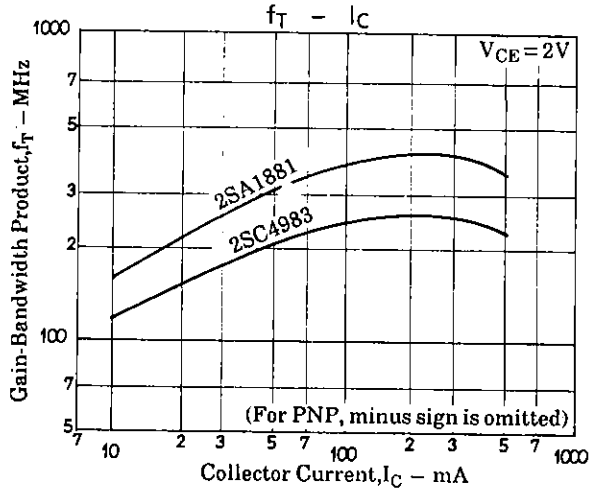
$V_{BE(sat)}$ – I_C



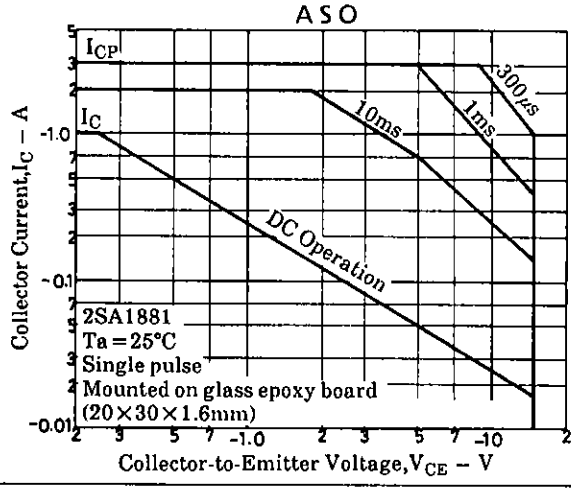
Cob – V_{CB}



f_T – I_C



ASO



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