

Ordering number:EN3023

PNP/NPN Epitaxial Planar Silicon Transistor



# 2SA1703/2SC4483

## Low-Frequency Amplifier, Electronic Governor Applications

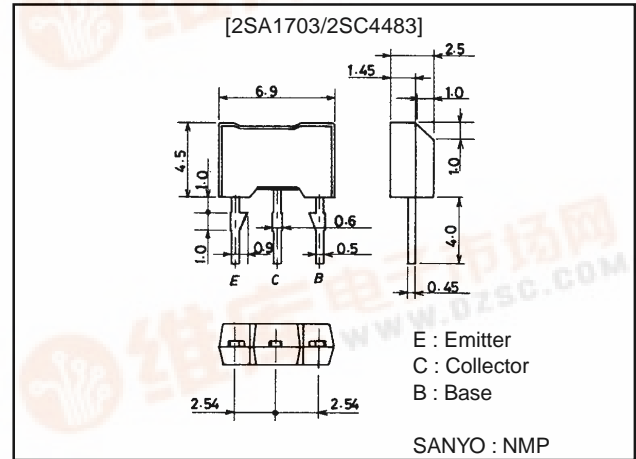
### Features

- Low collector-to-emitter saturation voltage.

### Package Dimensions

unit:mm

2064



( ) : 2SA1703

### Specifications

#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		(-30)	V
Collector-to-Emitter Voltage	$V_{CEO}$		(-25)	V
Emitter-to-Base Voltage	$V_{EBO}$		(-5)	V
Collector Current	$I_C$		(-1.5)	A
Collector Current (Pulse)	$I_{CP}$		(-3)	A
Collector Dissipation	$P_C$		1	W
Junction Temperature	$T_j$		150	°C
Storage Temperature	$T_{stg}$		-55 to +150	°C

#### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = (-)20V, I_E = 0$			(-100)	nA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)4V, I_C = 0$			(-100)	nA
DC Current Gain	$h_{FE1}$	$V_{CE} = (-)2V, I_C = (-)50mA$	100*		400*	
	$h_{FE2}$	$V_{CE} = (-)2V, I_C = (-)1A$	40			
Gain-Bandwidth Product	$f_T$	$V_{CE} = (-)10V, I_C = (-)50mA$		(180)		MHz
				150		MHz

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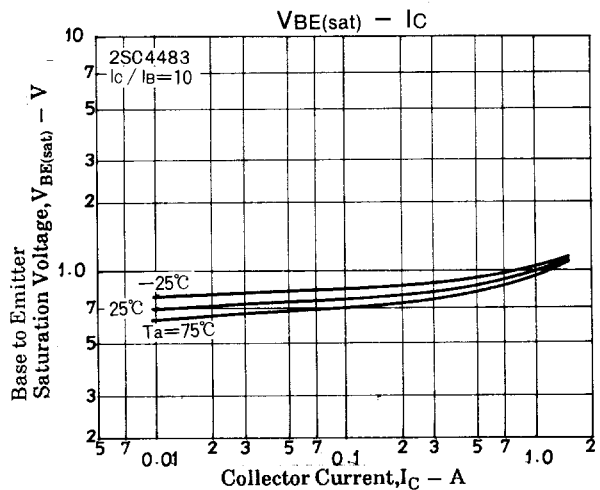
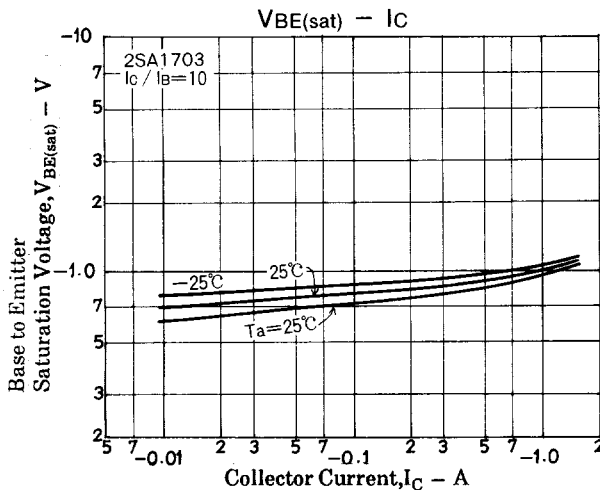
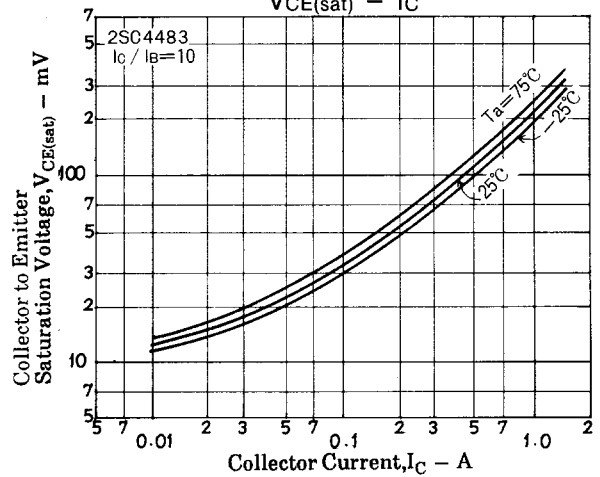
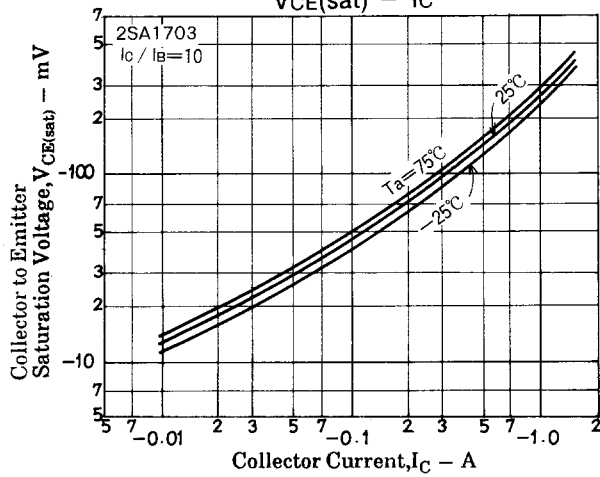
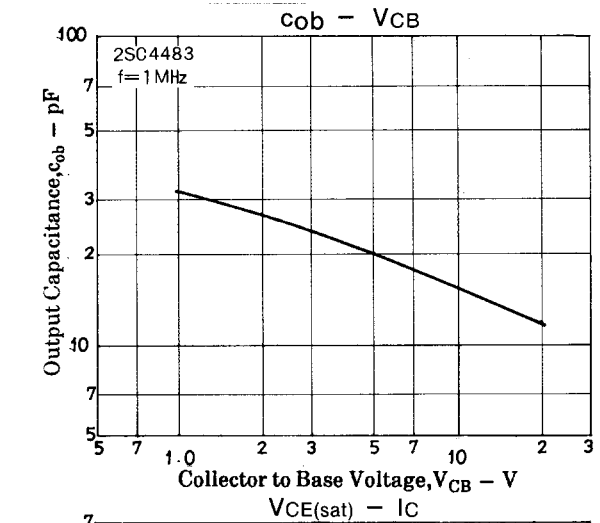
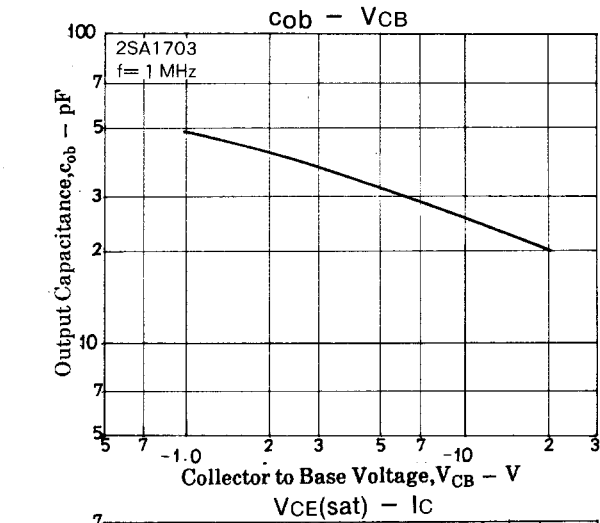
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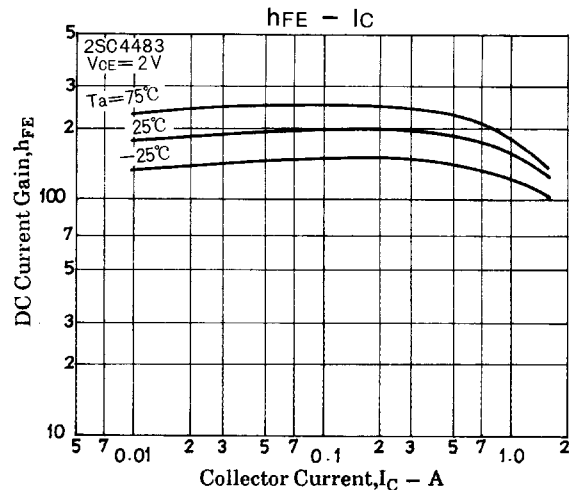
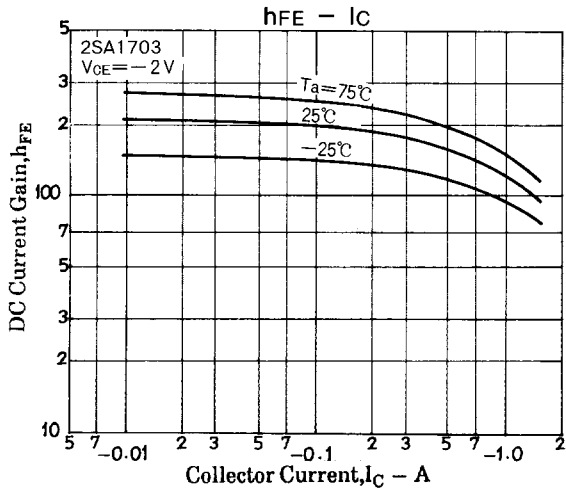
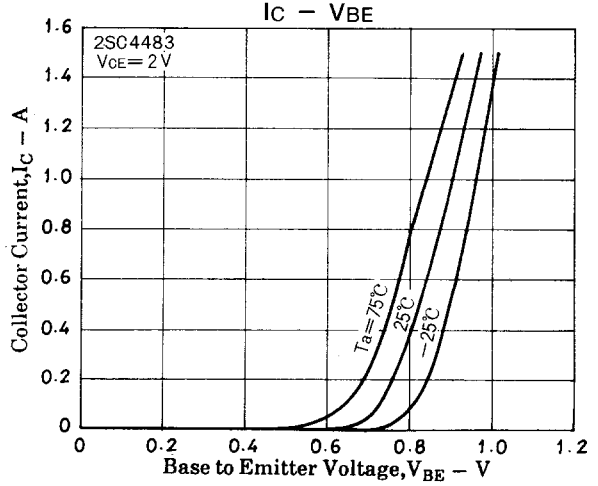
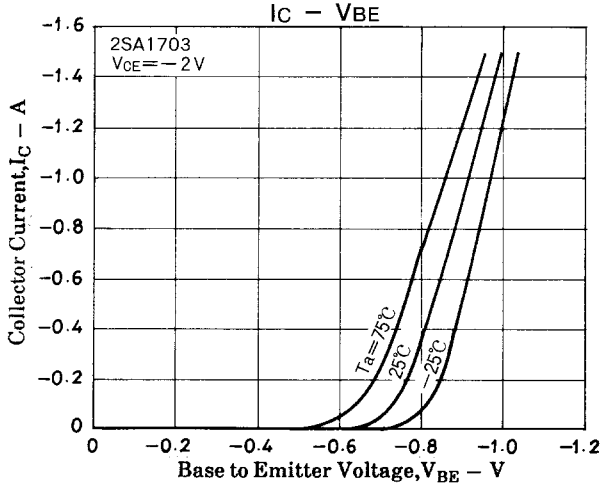
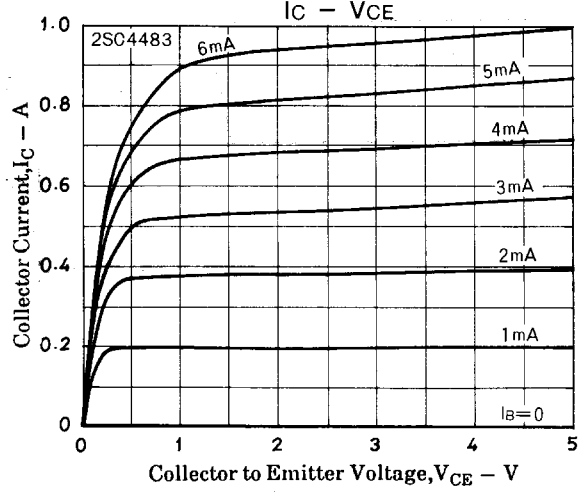
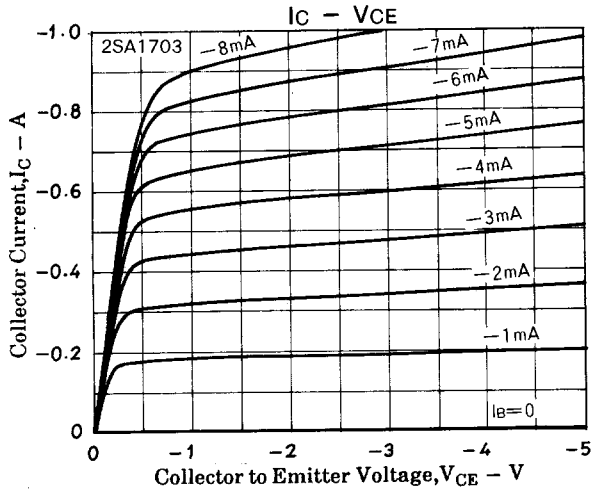
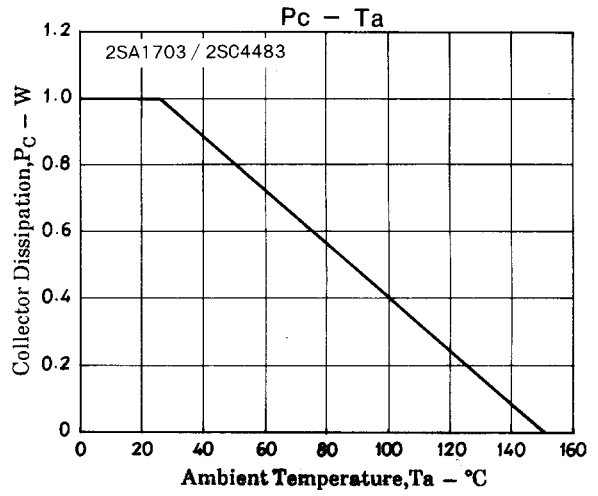
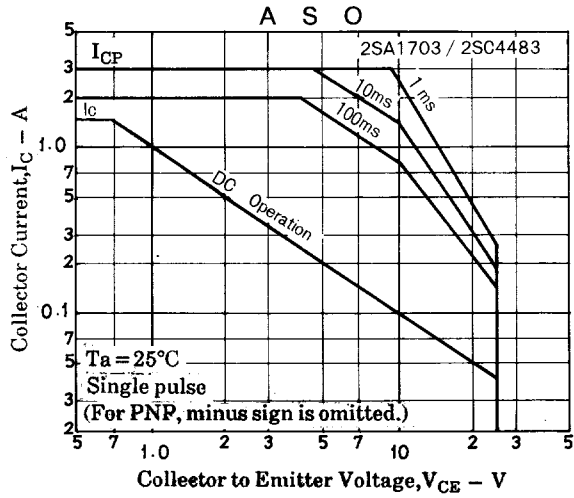
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)500mA, I_B=(-)50mA$		(-0.15)	(-0.5)	V
				0.12	0.3	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)500mA, I_B=(-)50mA$		(-0.9)	(-1.2)	V
Output Capacitance	$C_{ob}$	$V_{CB}=(-)10V, f=1MHz$		(25)15		pF
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(-)	30		V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-)	25		V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0$	(-)	5		V

\* : The 2SA1703/2SC4483 are classified by 50mA  $h_{FE}$  as follows :

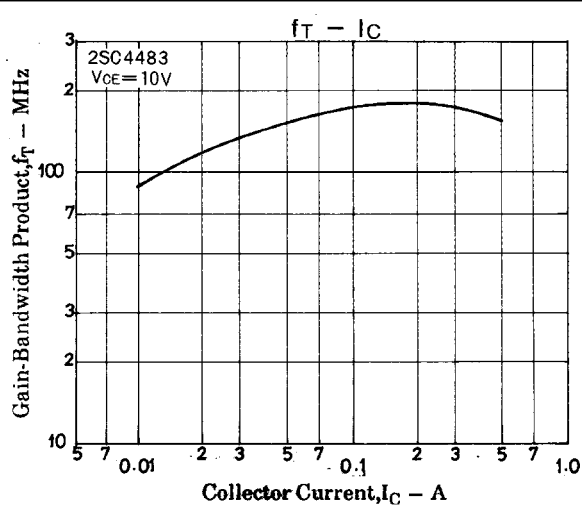
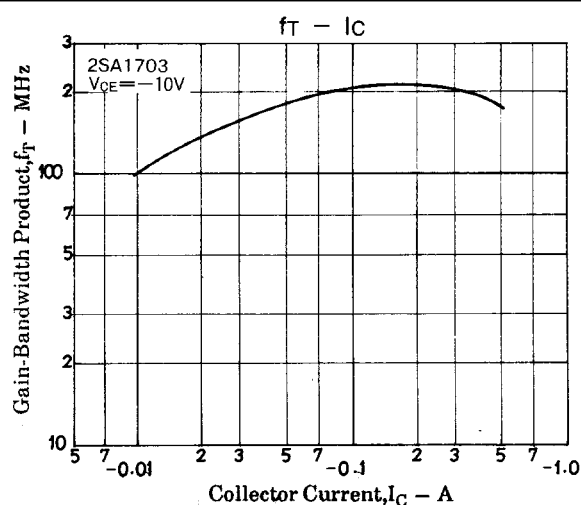
100	R	200	140	S	280	200	T	400
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