



## 2SA1703/2SC4483

### Low-Frequency Amplifier, Electronic Governor Applications

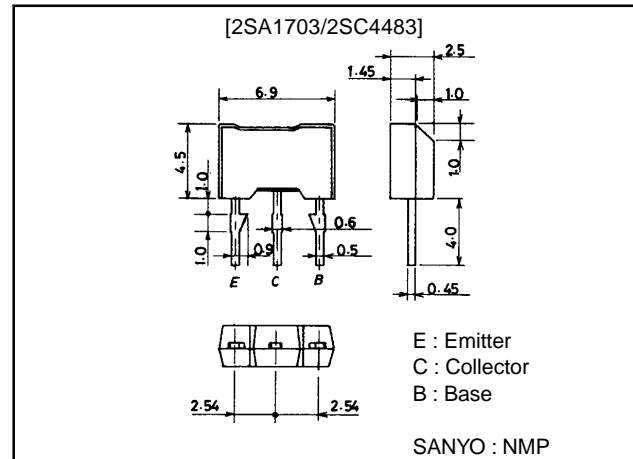
#### Features

- Low collector-to-emitter saturation voltage.

#### Package Dimensions

unit:mm

2064



() : 2SA1703

#### Specifications

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

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	$^\circ\text{C}$
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	$I_{CBO}$	$V_{CB}=(-)20\text{V}, I_E=0$			(-)100	nA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=(-)4\text{V}, I_C=0$			(-)100	nA
DC Current Gain	$h_{FE1}$	$V_{CE}=(-)2\text{V}, I_C=(-)50\text{mA}$	100*		400*	
	$h_{FE2}$	$V_{CE}=(-)2\text{V}, I_C=(-)1\text{A}$	40			
Gain-Bandwidth Product	$f_T$	$V_{CE}=(-)10\text{V}, I_C=(-)50\text{mA}$		(180)		MHz
				150		MHz

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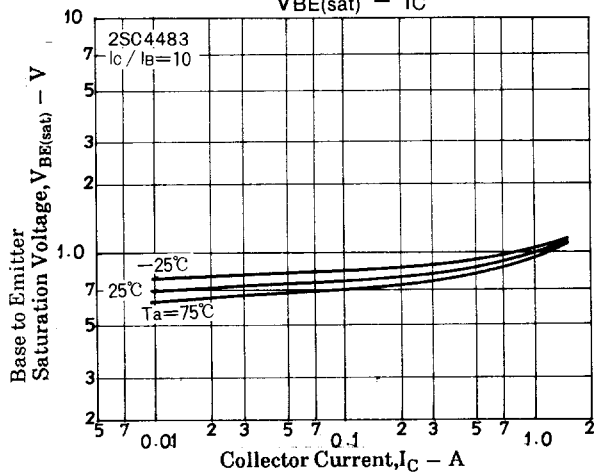
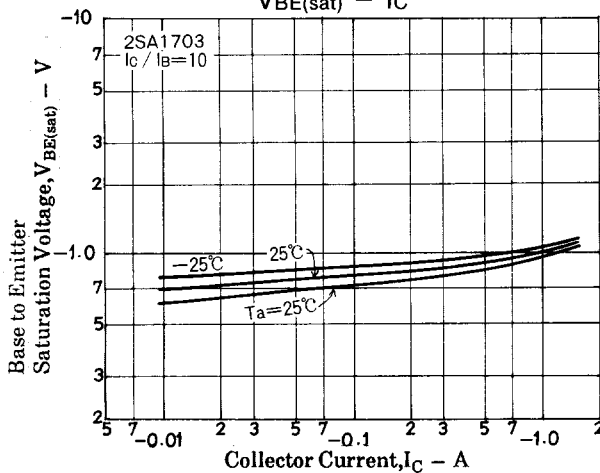
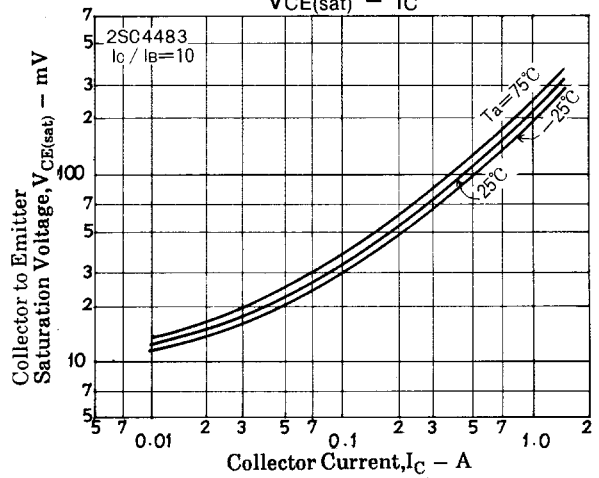
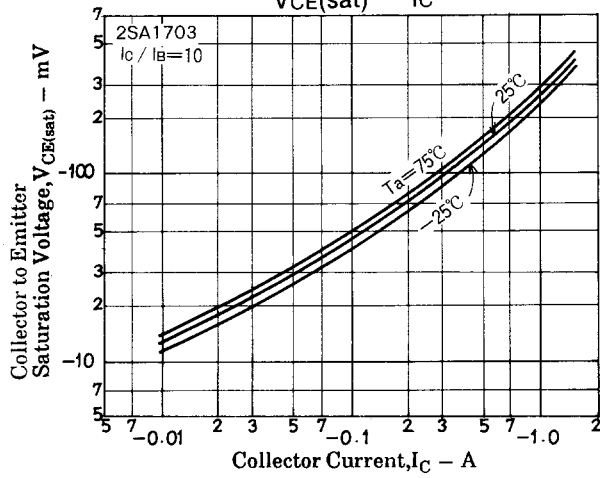
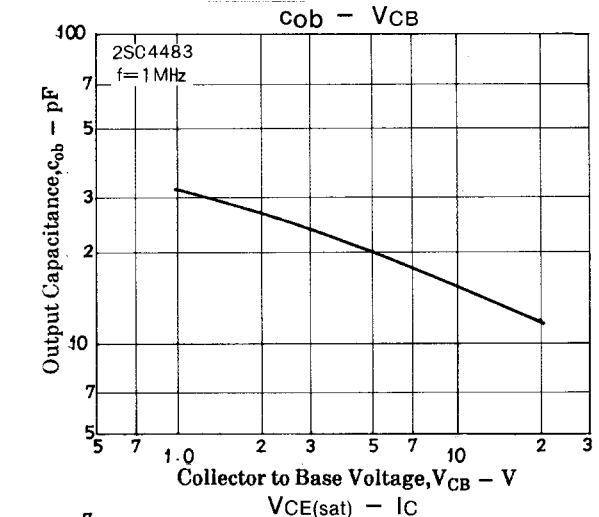
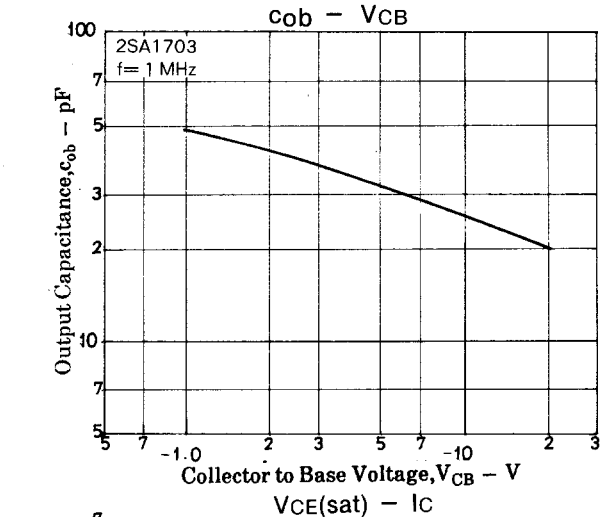
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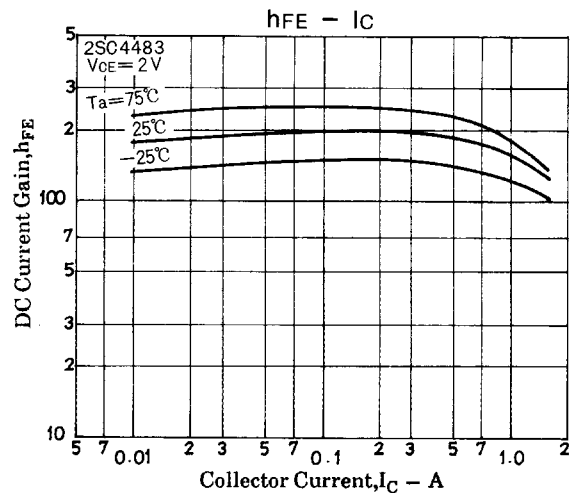
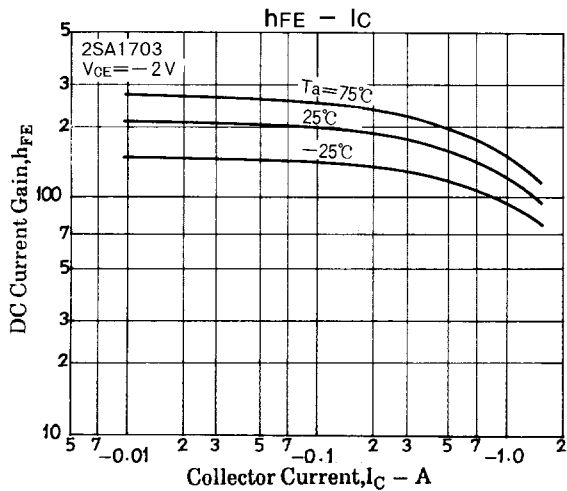
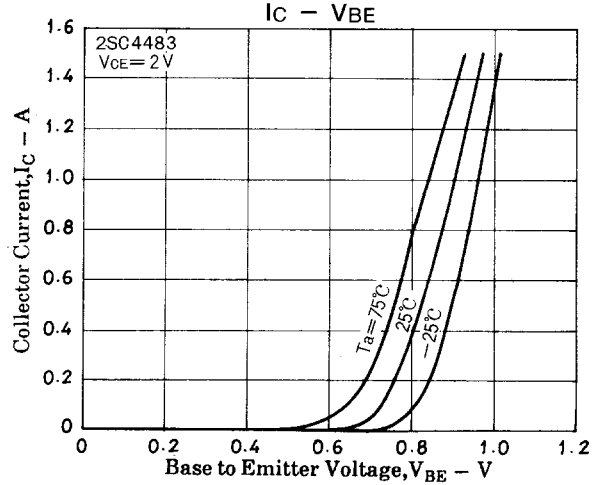
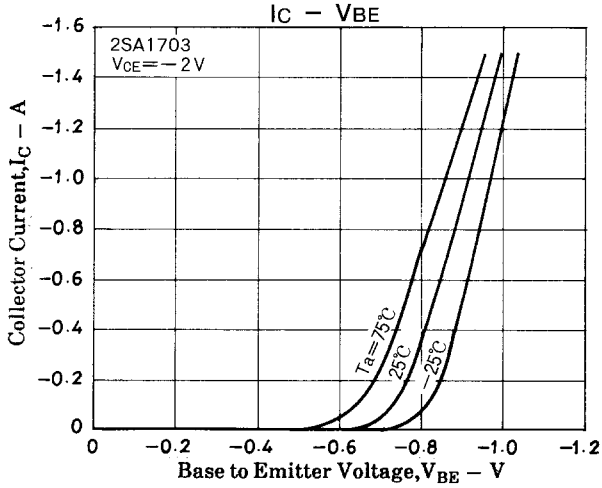
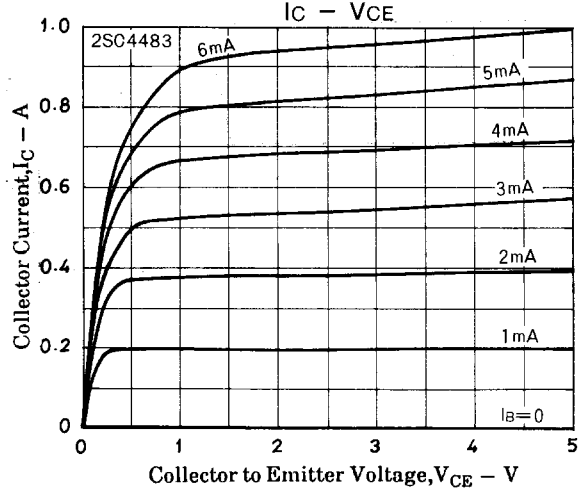
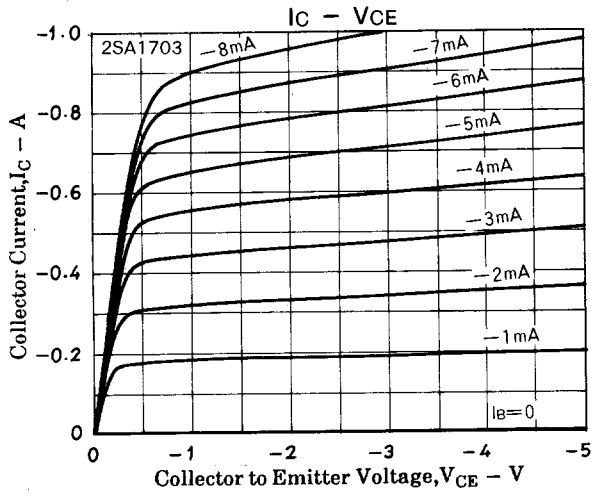
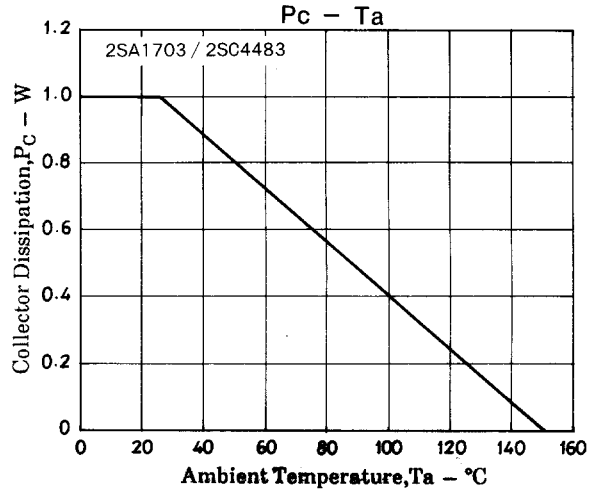
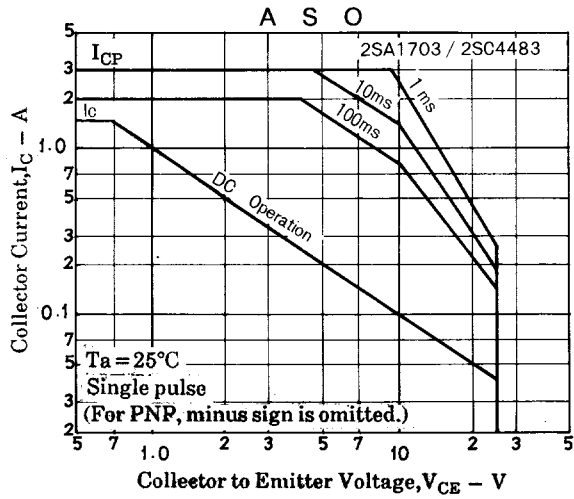
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)500mA, I_B=(-)50mA$		(-0.15)	(-0.5)	V
				0.12	0.3	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)500mA, I_B=(-)50mA$		(-0.9)	(-1.2)	V
Output Capacitance	$C_{ob}$	$V_{CB}=(-)10V, f=1MHz$		(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 :

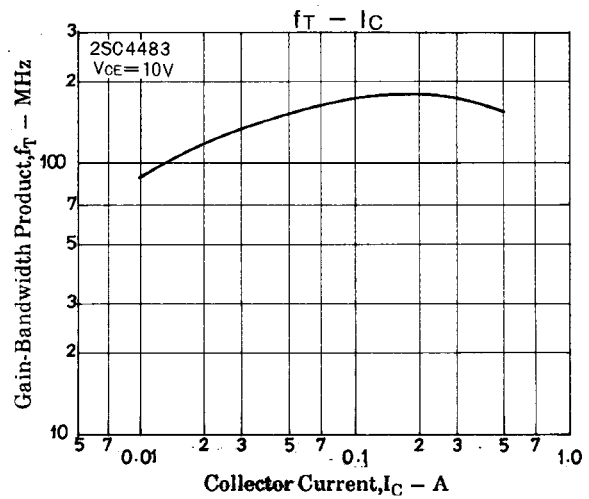
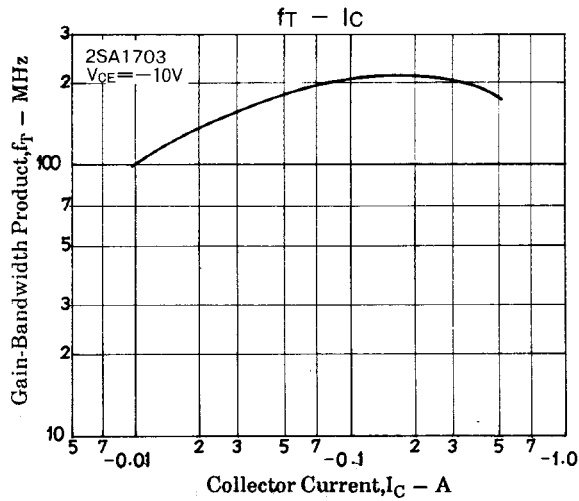
100 R	200	140 S	280	200 T	400
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