



2SA1703/2SC4483

Low-Frequency Amplifier, Electronic Governor Applications

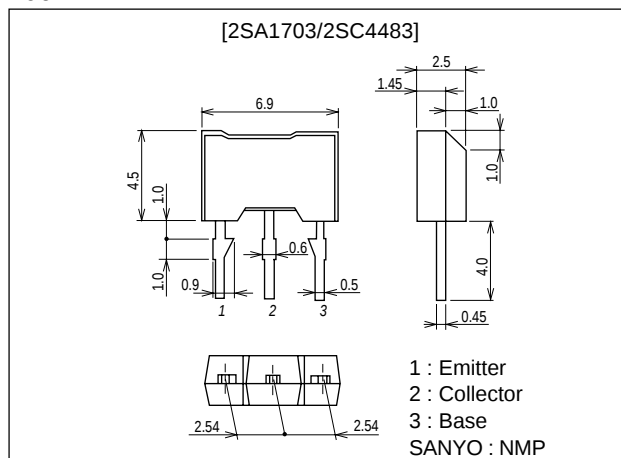
Features

- Low collector-to-emitter saturation voltage.

Package Dimensions

unit:mm

2064A



() : 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_{CE0}		(-)25	V
Emitter-to-Base Voltage	V_{EB0}		(-)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_{CB0}	$V_{CB}=(-)20\text{V}, I_E=0$			(-)100	nA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=(-)4\text{V}, I_C=0$			(-)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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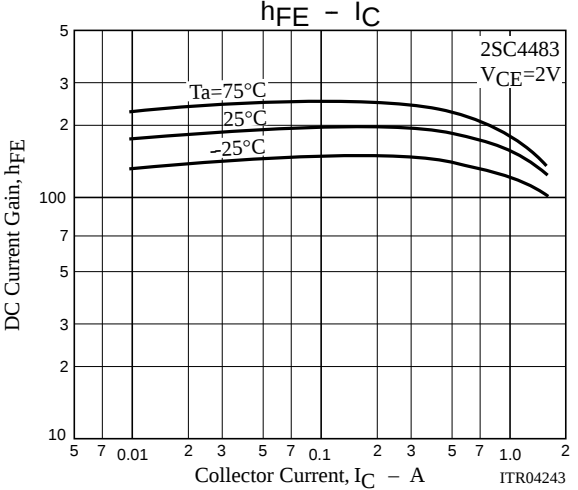
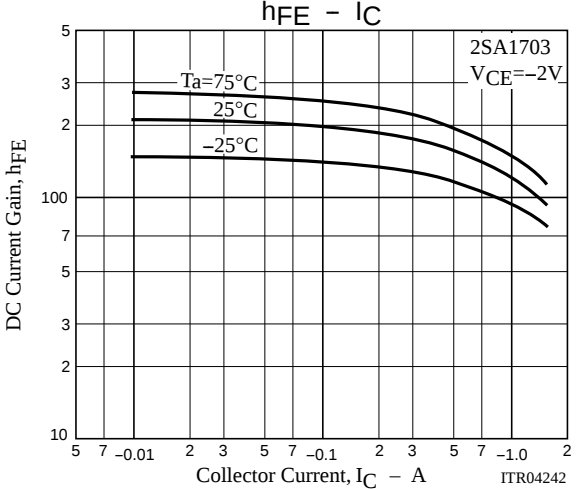
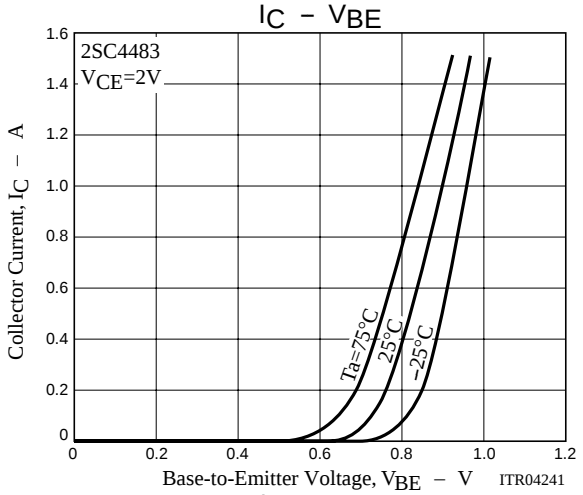
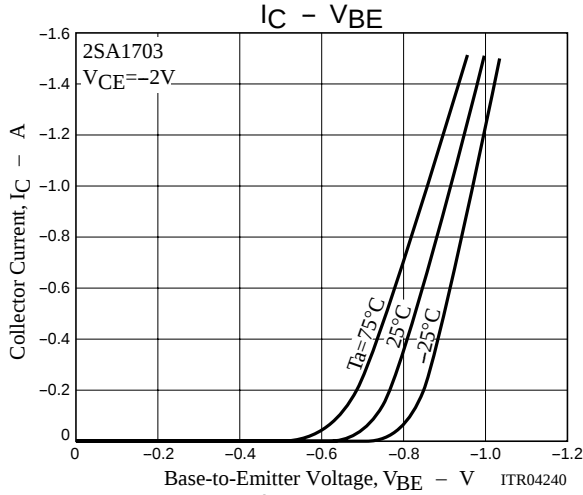
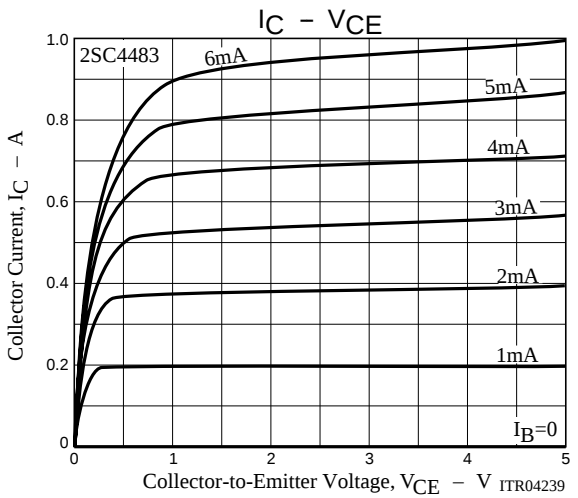
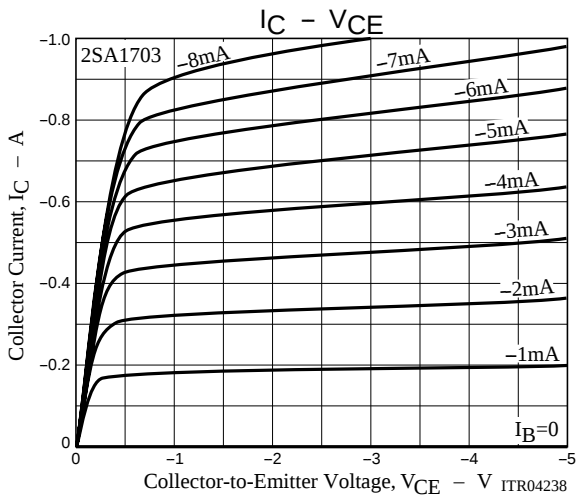
2SA1703/2SC4483

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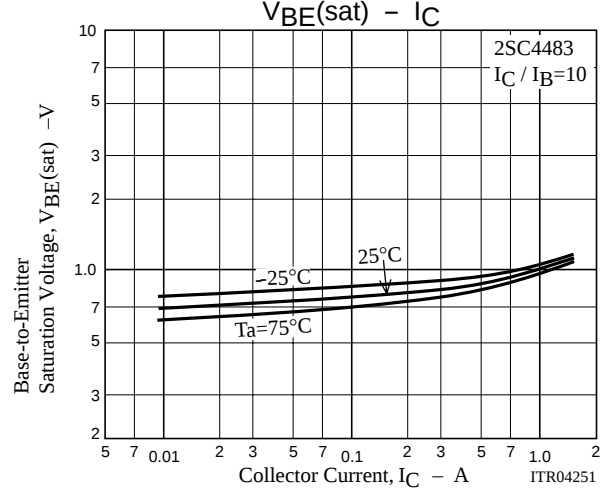
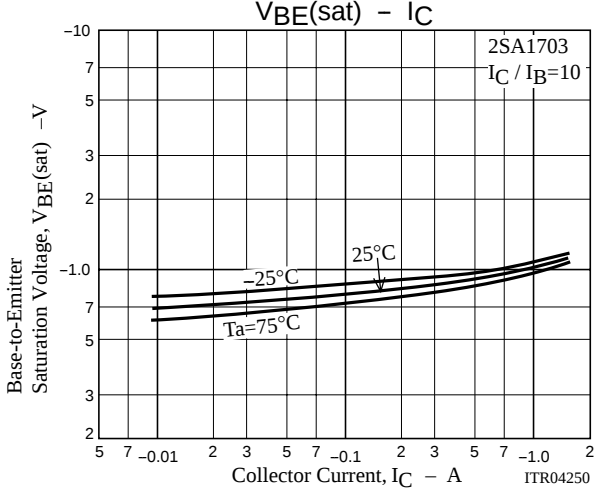
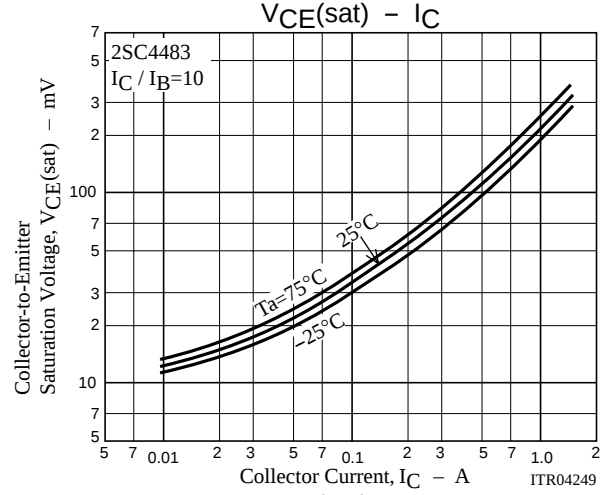
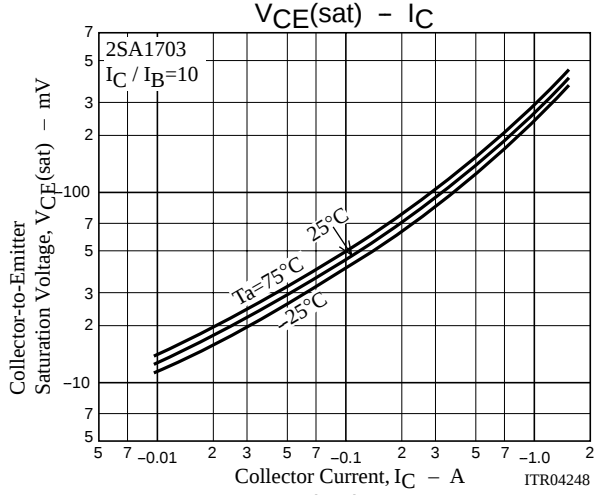
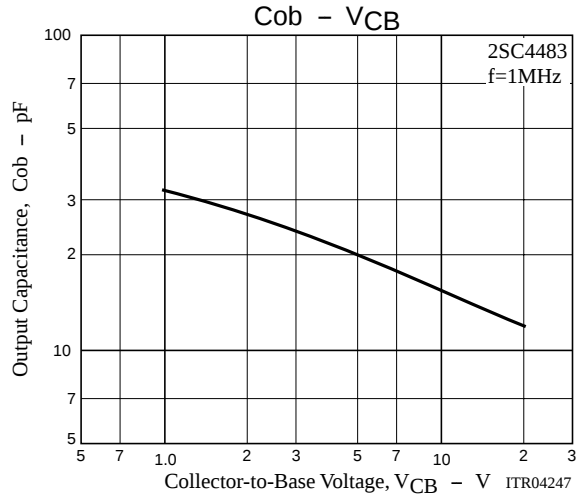
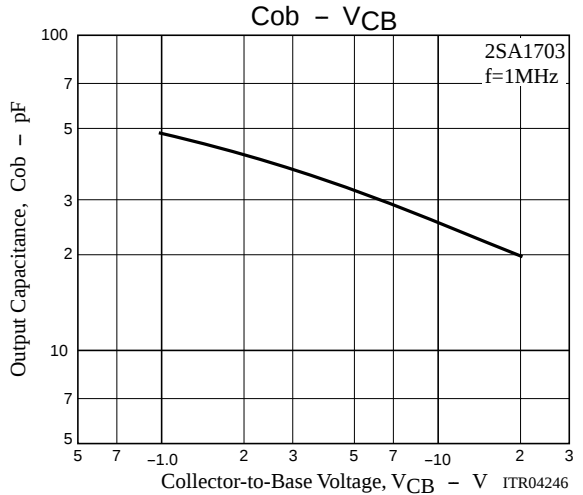
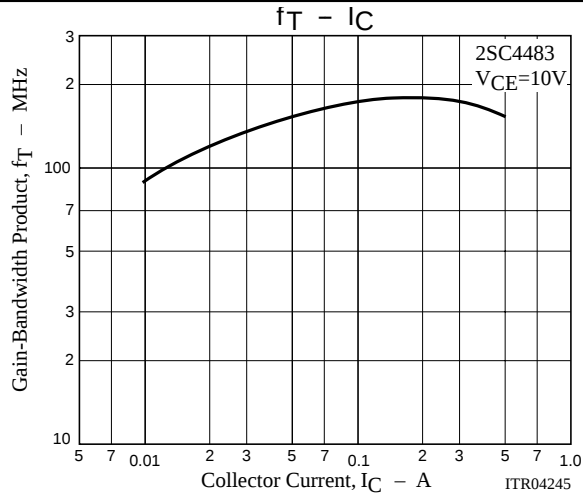
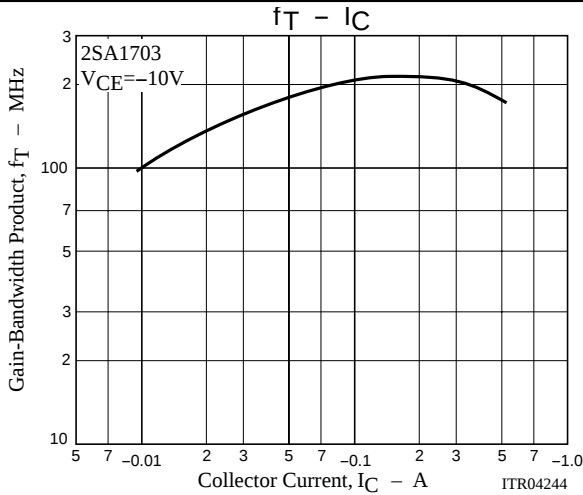
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)500mA, I_B=(-)50mA$		(-0.15)	(-0.5)	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)500mA, I_B=(-)50mA$		0.12	0.3	V
Output Capacitance	C_{ob}	$V_{BC}=(-)10V, f=1MHz$		(25)15		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

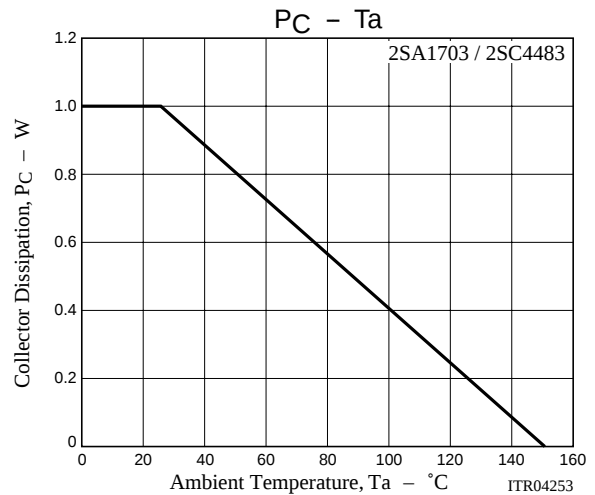
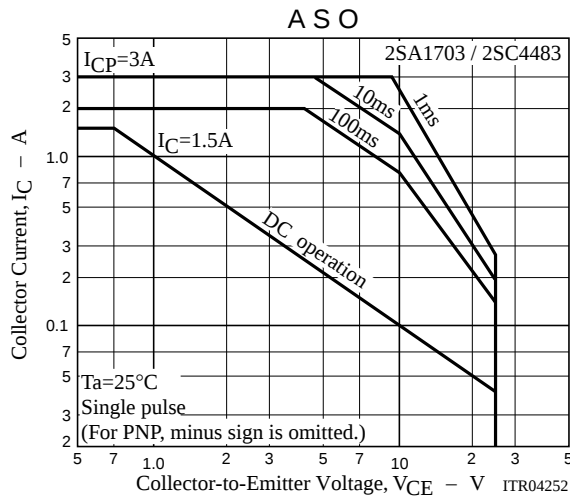
* : The 2SA1703/2SC4483 are classified by 50mA h_{FE} as follows :

Rank	R	S	T
h_{FE}	100 to 200	140 to 280	200 to 400



2SA1703/2SC4483





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