

## 2SA1703/2SC4483

# Low-Frequency Amplifier, Electronic Governor Applications

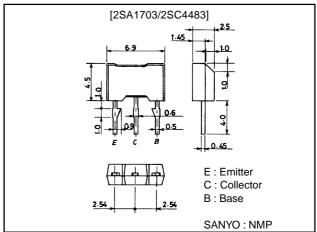
#### **Features**

· 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 <sub>CBO</sub>		(–)30	V
Collector-to-Emitter Voltage	VCEO		(–)25	V
Emitter-to-Base Voltage	VEBO		(–)5	V
Collector Current	Ic		(-)1.5	Α
Collector Current (Pulse)	I <sub>CP</sub>		(–)3	Α
Collector Dissipation	PC		1	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

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

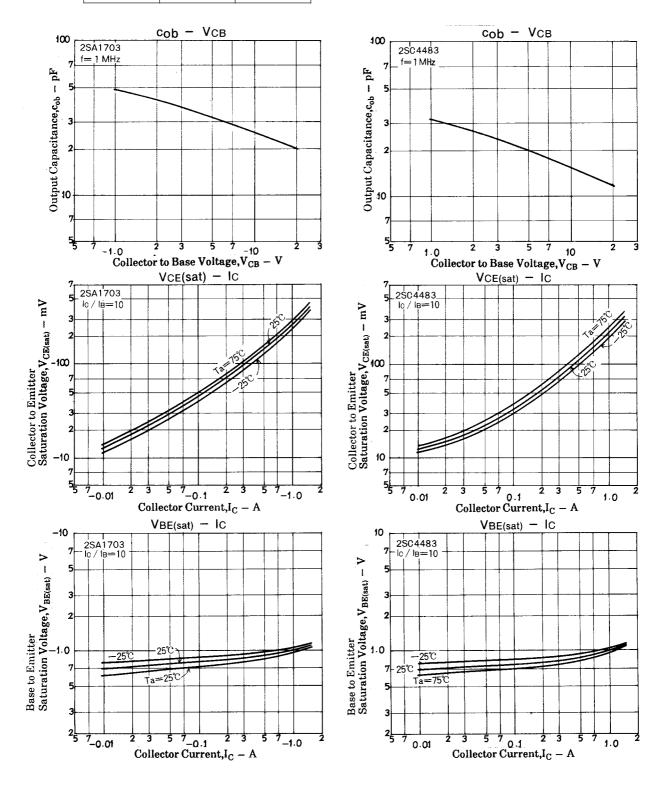
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offit
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =(-)20V, I <sub>E</sub> =0			(-)100	nA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =(-)4V, I <sub>C</sub> =0			(-)100	nA
DC Current Gain	h <sub>FE</sub> 1	V <sub>CE</sub> =(-)2V, I <sub>C</sub> =(-)50mA	100*		400*	
	h <sub>FE</sub> 2	V <sub>CE</sub> =(-)2V, I <sub>C</sub> =(-)1A	40			
Gain-Bandwidth Product	fT	V <sub>CE</sub> =(-)10V, I <sub>C</sub> =(-)50mA		(180)		MHz
				150		MHz

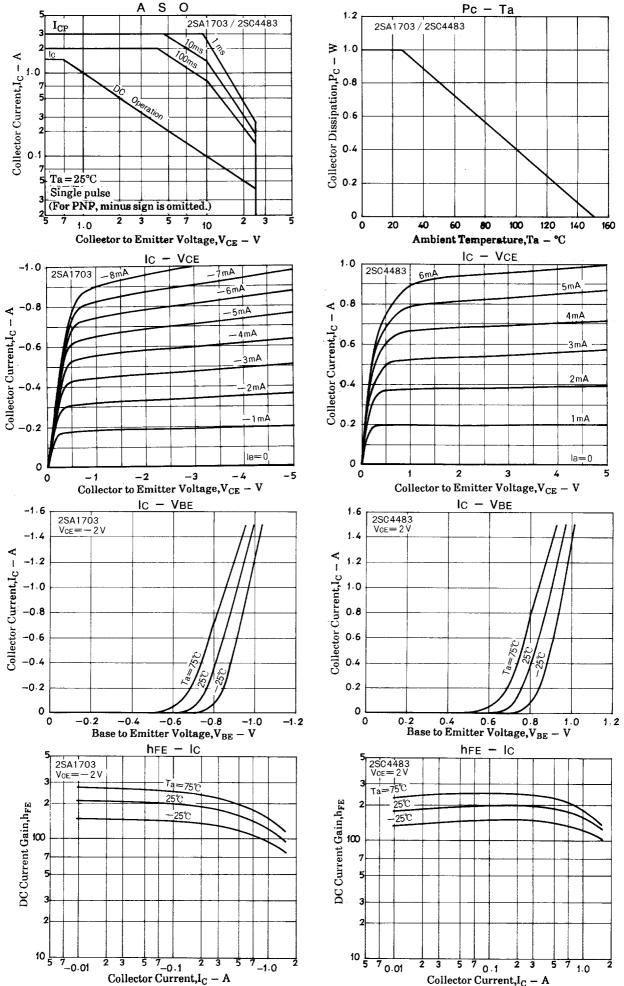
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	] Offit
Collector-to-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =(-)500mA, I <sub>B</sub> =(-)50mA		(-0.15)	(-0.5)	٧
				0.12	0.3	٧
Base-to-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =(-)500mA, I <sub>B</sub> =(-)50mA		(–)0.9	(-)1.2	V
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =(-)10V, f=1MHz		(25)15		pF
Collector-to-Base Breakdown Voltage	V(BR)CBO	I <sub>C</sub> =(-)10μA, I <sub>E</sub> =0	(-)30			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	I <sub>C</sub> =(−)1mA, R <sub>BE</sub> =∞	(–)25			V
Emitter-to-Base Breakdown Votage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =(–)10μΑ, I <sub>C</sub> =0	(–)5			V

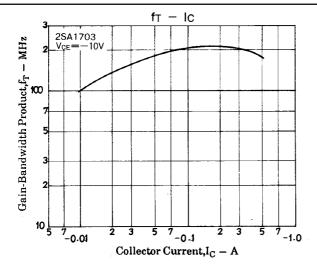
<sup>\* :</sup> The 2SA1703/2SC4483 are classified by 50mA  $h_{FE}$  as follows :

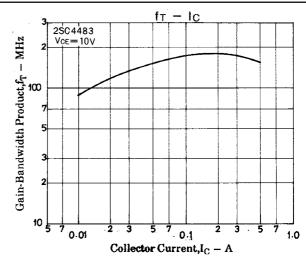
100 R 200	140 S 280	200 T 400
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#### 2SA1703/2SC4483





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