

	No.3022	2SA1701/2SC4481 PNP/NPN Epitaxial Planar Silicon Transistors Low-Frequency General-Purpose Amp Applications

Applications

- AF power amp, medium-speed switching, small-sized motor driver applications.

Features

- Large current capacity.
- Low collector-to-emitter saturation voltage.

(): 2SA1701

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

			unit
Collector to Base Voltage	V_{CB0}	(-)15	V
Collector to Emitter Voltage	V_{CEO}	(-)15	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	0.9	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

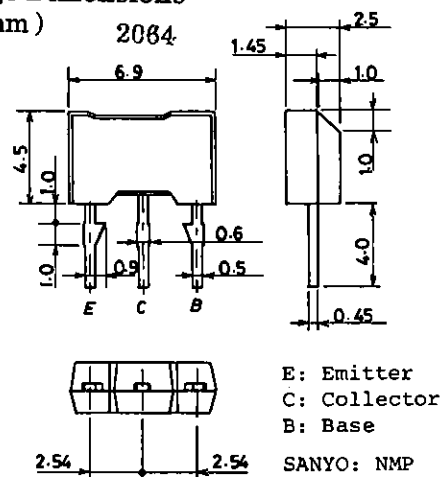
		min	typ	max	unit
Collector Cutoff Current	I_{CBO} $V_{CB} = (-)12\text{V}, I_E = 0$			(-)100	nA
Emitter Cutoff Current	I_{EBO} $V_{EB} = (-)4\text{V}, I_C = 0$			(-)100	nA
DC Current Gain	$h_{FE}(1)$ $V_{CE} = (-)2\text{V}, I_C = (-)50\text{mA}$	140		560	
	$h_{FE}(2)$ $V_{CE} = (-)2\text{V}, I_C = (-)1\text{A}$	70			
Gain-Bandwidth Product	f_T $V_{CE} = (-)2\text{V}, I_C = (-)50\text{mA}$		(300)200		MHz
C-E Saturation Voltage	$V_{CE(sat)}(1)$ $I_C = (-)5\text{mA}, I_B = (-)0.5\text{mA}$		(-)10	(-)25	mV
	$V_{CE(sat)}(2)$ $I_C = (-)400\text{mA}, I_B = (-)20\text{mA}$		(-)100	(-)200	mV
B-E Saturation Voltage	$V_{BE(sat)}$ $I_C = (-)400\text{mA}, I_B = (-)20\text{mA}$		(-)0.9	(-)1.2	V
Output Capacitance	c_{ob} $V_{CB} = (-)10\text{V}, f = 1\text{MHz}$		(15)10		pF
C-B Breakdown Voltage	$V_{(BR)CBO}$ $I_C = (-)10\mu\text{A}, I_E = 0$	(-)15			V
C-E Breakdown Voltage	$V_{(BR)CEO}$ $I_C = (-)1\text{mA}, R_{BE} = \infty$	(-)15			V
E-B Breakdown Voltage	$V_{(BR)EBO}$ $I_E = (-)10\mu\text{A}, I_C = 0$	(-)5			V

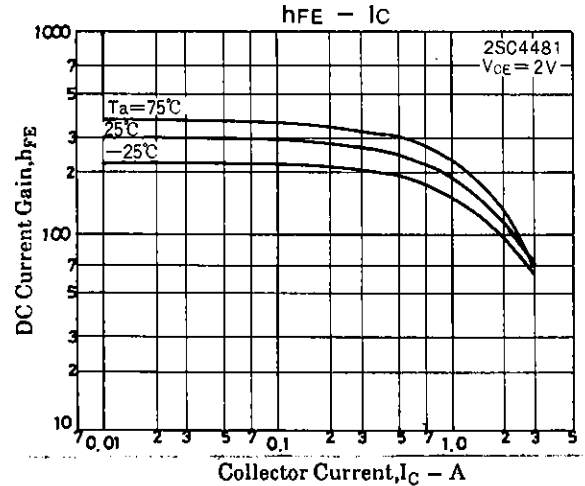
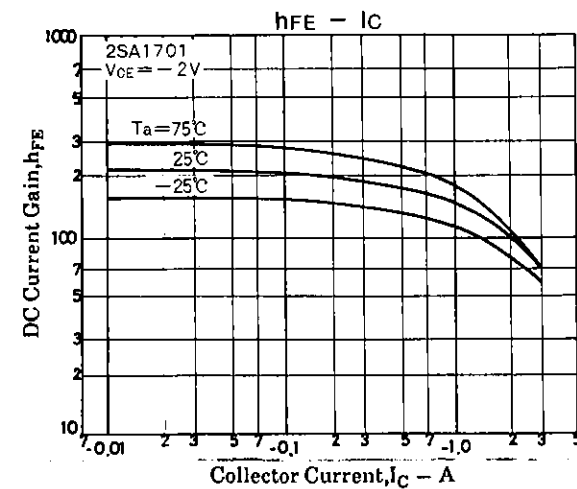
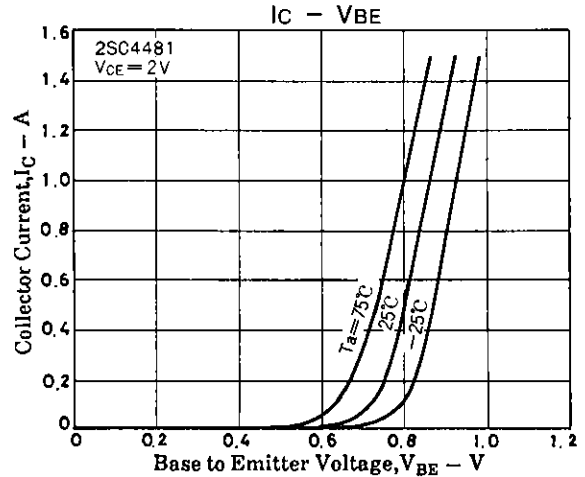
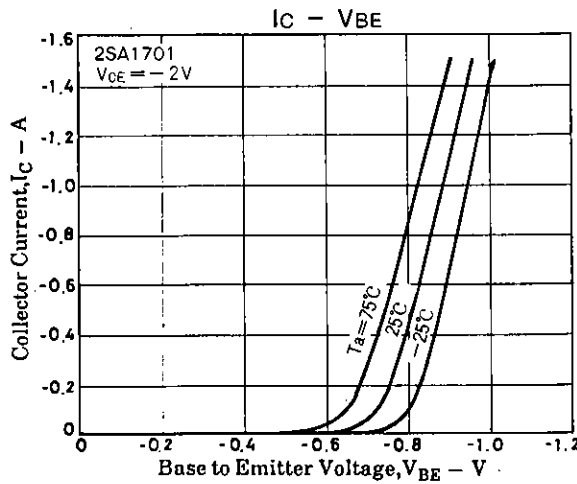
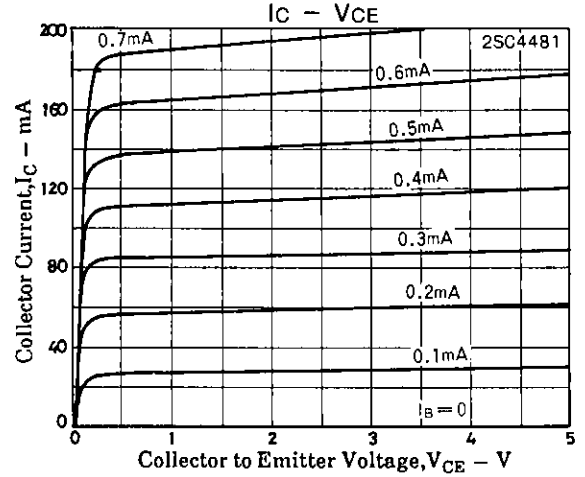
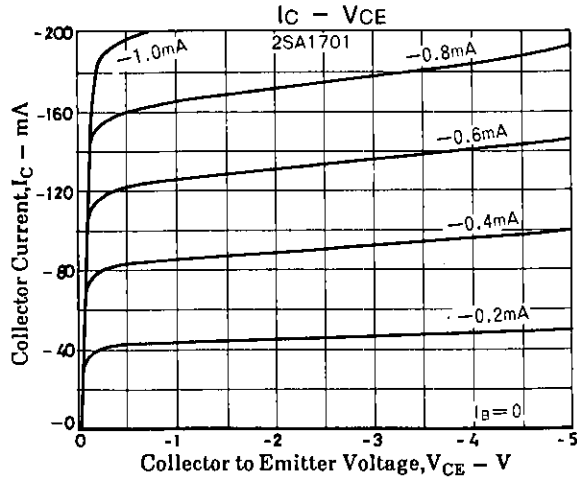
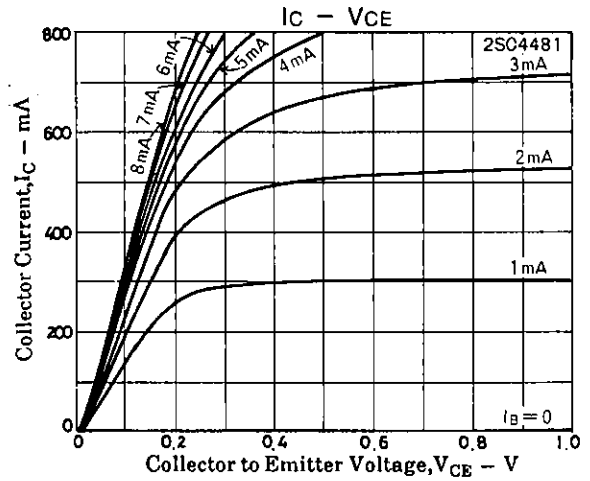
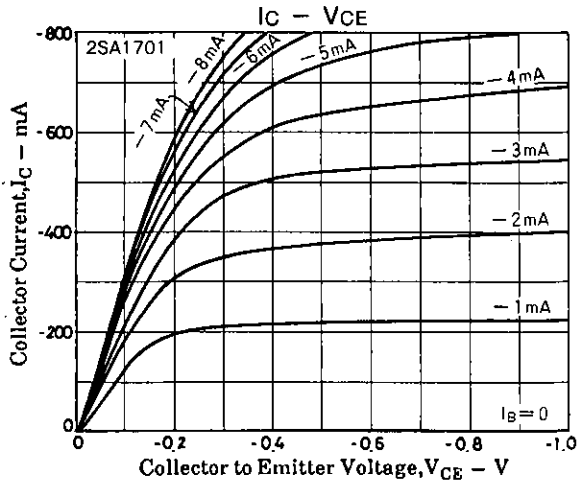
※ : The 2SA1701/2SC4481 are classified by 50mA h_{FE} as follows :

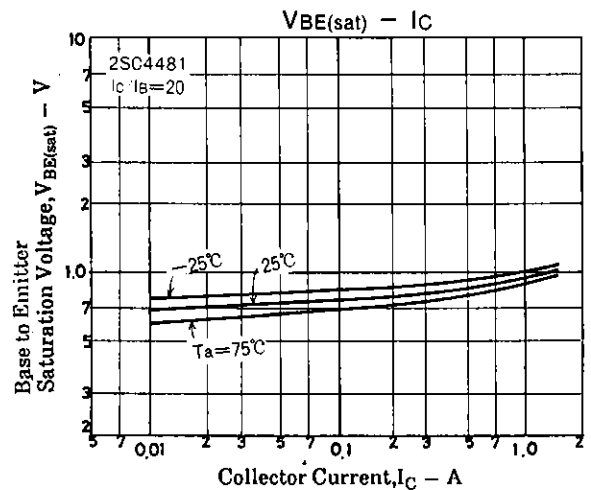
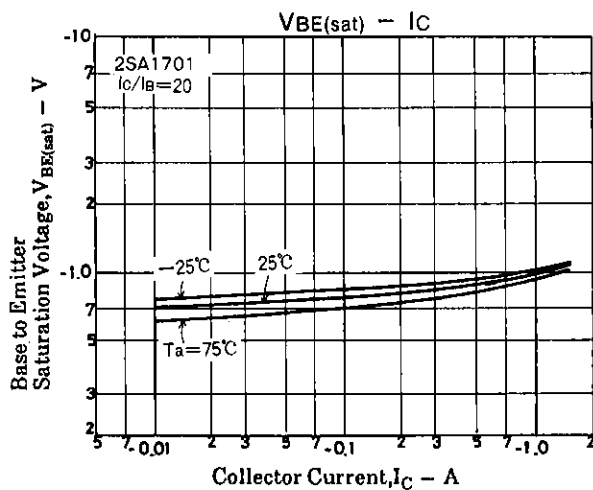
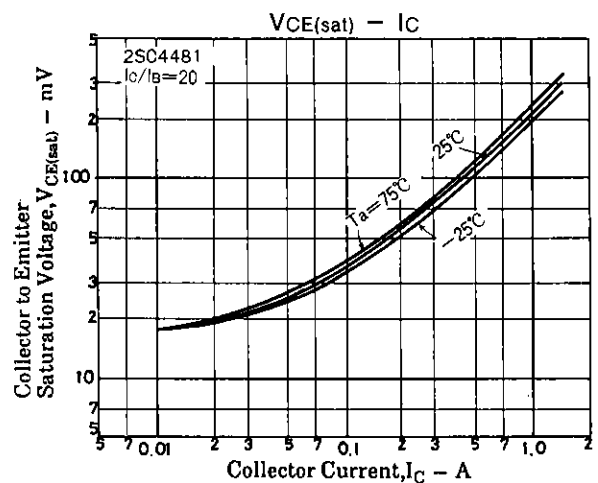
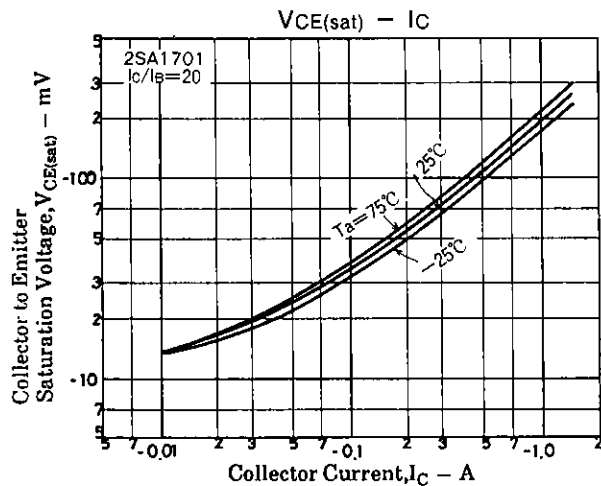
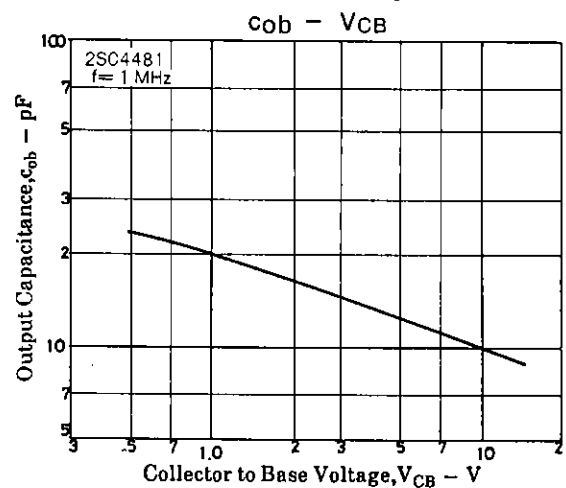
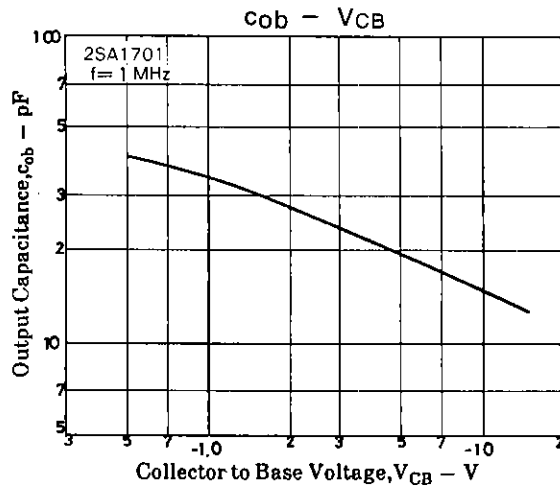
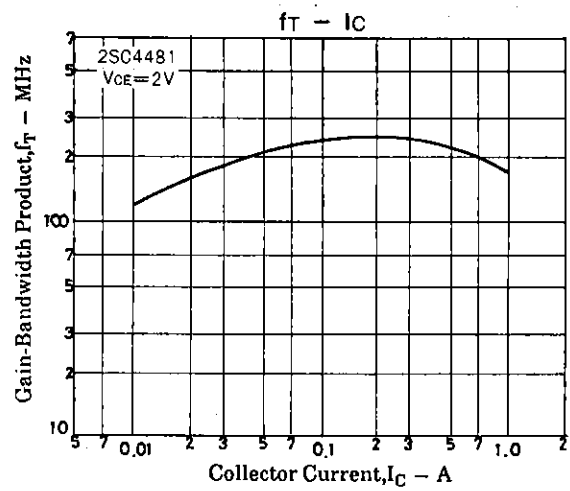
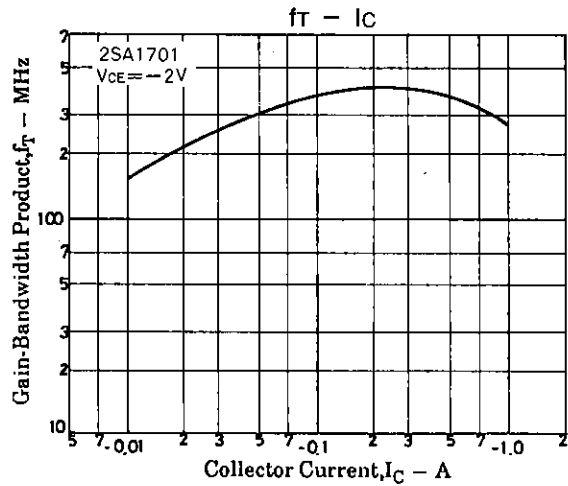
140	S	280	200	T	400	280	U	560
-----	---	-----	-----	---	-----	-----	---	-----

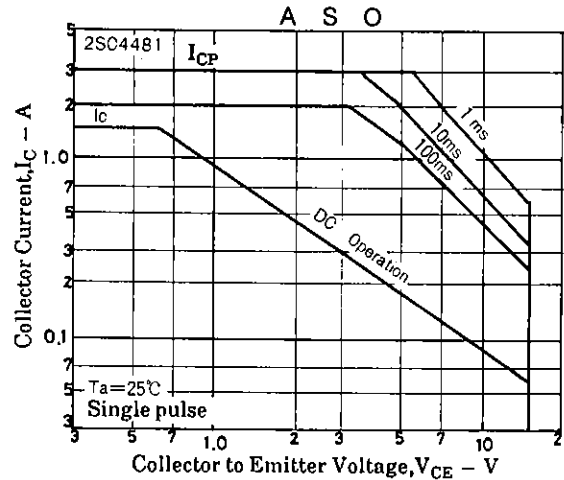
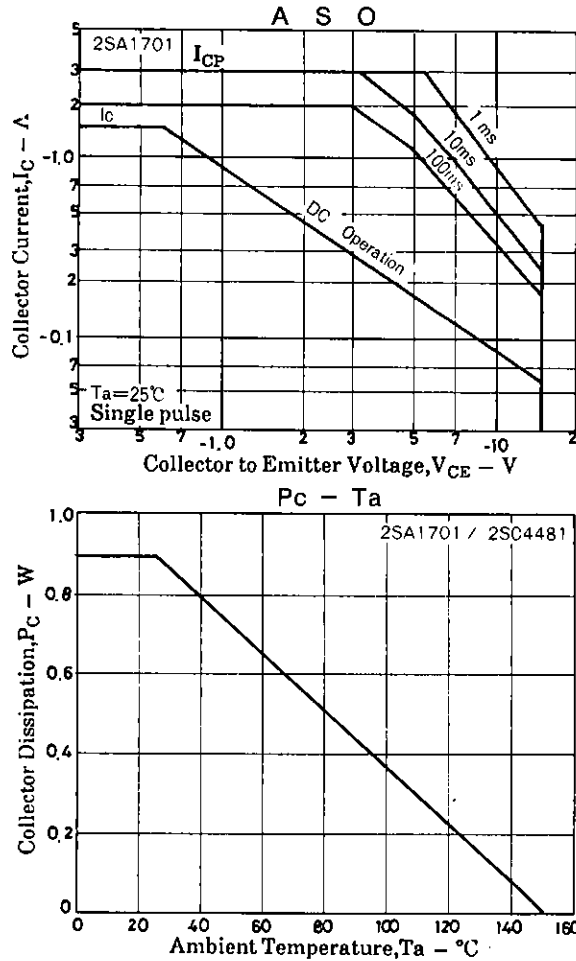
Package Dimensions

(unit: mm)









■ No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.

■ Anyone purchasing any products described or contained herein for an above-mentioned use shall:

- ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use;
- ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.

■ Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.