PNP/NPN Epitaxial Planar Silicon Transistors



2SA1701/2SC4481

Low-Frequency General-Purpose Amplifier Applications

Applications

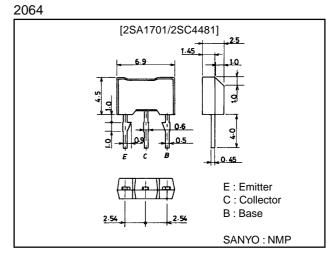
• AF power amplifier, medium-speed switching, smallsized motor driver applications.

Features

- · Large current capacity.
- \cdot Low collector-to-emitter saturation voltage.

Package Dimensions

unit:mm



():2SA1701

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		(–)15	V
Collector-to-Emitter Voltage	VCEO		(–)15	V
Emitter-to-Base Voltage	VEBO		(–)5	V
Collector Current	ΙC		(–)1.5	A
Collector Current (Pulse)	ICP		(–)3	А
Collector Dissipation	PC		0.9	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		–55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
	Symbol		min	typ	max	Onit
Collector Cutoff Current	ICBO	V _{CB} =(-)12V, I _E =0			(–)100	nA
Emitter Cutoff Current	IEBO	V _{EB} =(-)4V, I _C =0			(–)100	nA
DC Current Gain	h _{FE} 1	V _{CE} =(-)2V, I _C =(-)50mA	140*		560*	
	h _{FE} 2	V _{CE} =(-)2V, I _C =(-)1A	70			
Gain-Bandwidth Product	fT	V _{CE} =(-)2V, I _C =(-)50mA		(300)		MHz
				200		MHz

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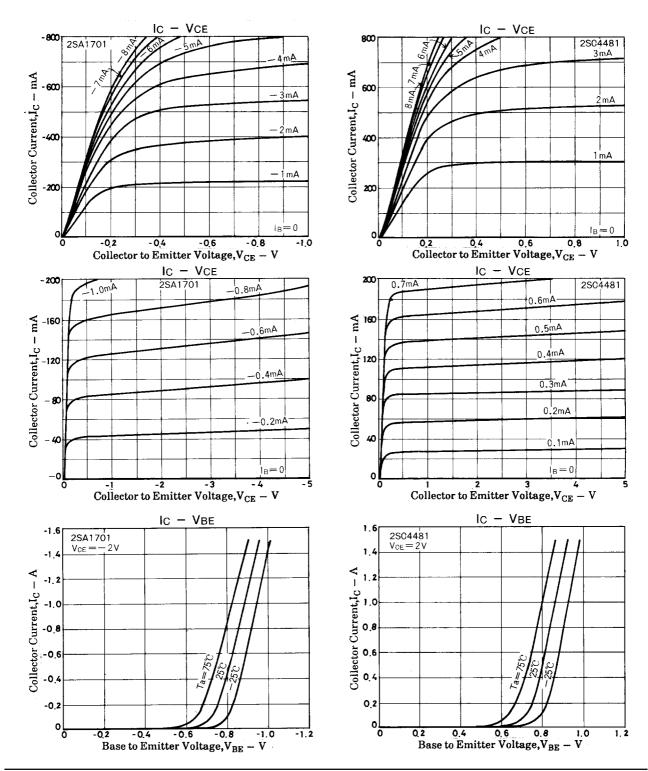
SANYO Electric Co., Ltd. Semiconductor Bussiness Headquaters TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

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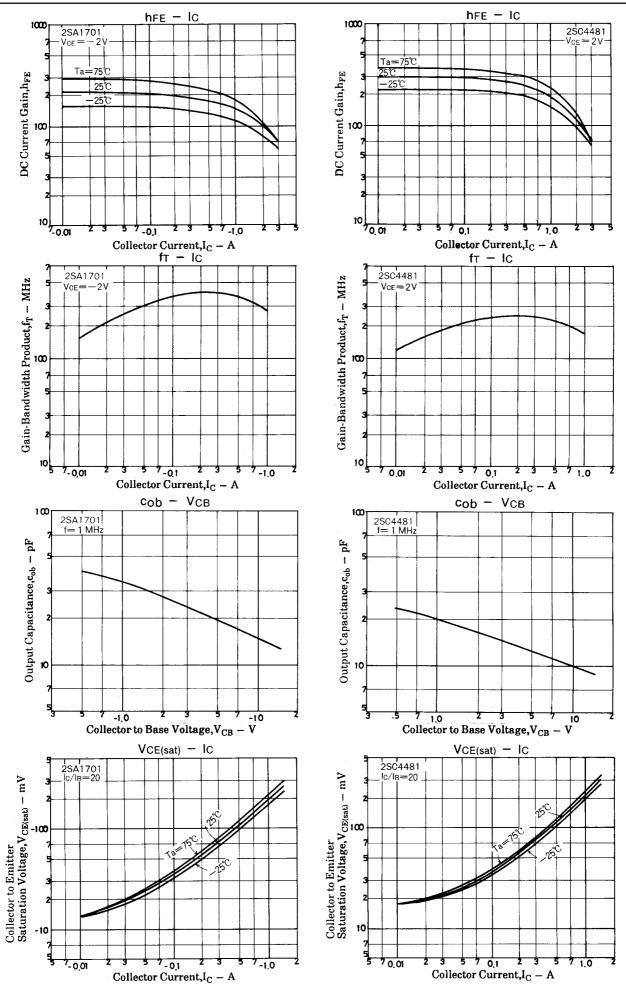
Parameter	Symbol	Conditions		Ratings		
	Symbol		min	typ	max	Unit
Collector-to-Emitter Saturation Voltage	V _{CE(sat)} 1	I _C =(-)5mA, I _B =(-)0.5mA		(–10)	(–)25	mV
	V _{CE(sat)} ²	I _C =(-)400mA, I _B =(-)20mA		(–)100	(–)200	mV
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =(-)400mA, I _B =(-)20mA		(-)0.9	(–)1.2	V
Output Capacitance	Cob	$V_{CB}=(-)10V, f=1MHz$		(15)10		pF
Collector-to-Base Breakdown Voltage	V _(BR) CBO	I _C =(-)10µA, I _E =0	(–)15			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	I _C =(−)1mA, R _{BE} =∞	(–)15			V
Emitter-to-Base Breakdown Votage	V(BR)EBO	I _E =(-)10μA, I _C =0	(–)5			V

 $\ast:2SA1701/2SC4481$ are classified by 50mA h_{FE} as follows :

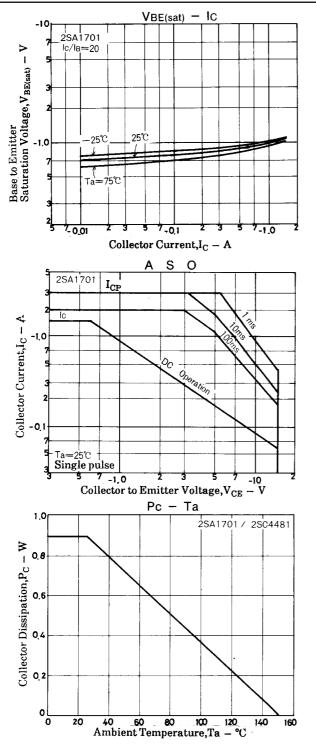
140 S 280 200 T 400 280 U 560

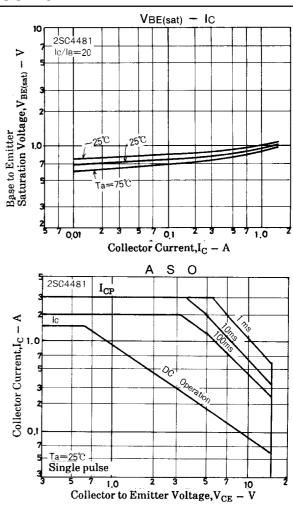


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