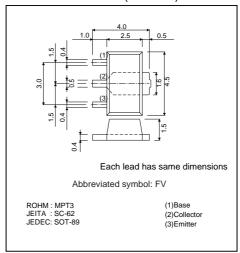
# Low Frequency Amplifier (-12V, -2A) 2SB1697

# ● Features

Low VCE(sat)  $VCE(sat) \le -180 mV$  (Ic /IB=-1A/-50mA)

# ●External dimensions (Unit : mm)



# ● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	Vсво	-15	V
Collector-emitter voltage	Vceo	-12	V
Emitter-base voltage	Vево	-6	V
O-Ht	Ic	-2	A(DC)
Collector current		-4	A(Pulse)*1
Collector power dissipation	Pc	500	mW*2
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

<sup>\*1</sup> Single pulse, Pw=1ms

#### Packaging specifications

	Package	Taping
Туре	Code	T100
	Basic ordering unit (pieces)	1000
2SB1697		0

# ●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	-15	_	_	V	Ic= -10μA
Collector-emitter breakdown voltage	BVceo	-12	_	_	V	Ic=-1mA
Emitter-base breakdown voltage	ВУЕВО	-6	_	_	V	I <sub>E</sub> = -10μA
Collector cutoff current	Ісво	_	_	-100	nA	Vсв= −15V
Emitter cutoff current	ІЕВО	_	_	-100	nA	V <sub>EB</sub> = -6V
Collector-emitter saturation voltage	VcE(sat)	_	-100	-180	mV	Ic/I <sub>B</sub> = -1A/ -50mA
DC current transfer ratio	hfe	270	_	680	_	Vce= -2V, Ic= -200mA*
Transition frequency	f⊤	_	360	_	MHz	Vc=-2V, I=200mA, f=100MHz*
Output capacitance	Cob	_	15	_	pF	Vcb=-10V, Ie=0A, f=1MHz

<sup>\*</sup> Pulsed

<sup>\*2</sup> When mounted on a 40x40x0.7 mm ceramic board.

#### •Electrical characteristic curves

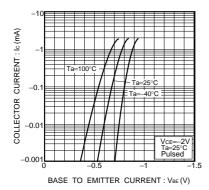


Fig.1 Grounded emitter propagation characteristics

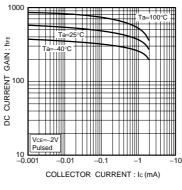


Fig.2 DC current gain vs. collector current

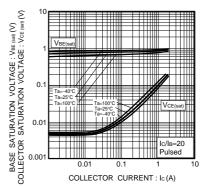


Fig.3 Collector-emitter saturation voltage vs.collector current Base-emitter saturation voltage vs.collector current

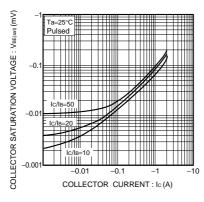


Fig.4 Collector-emitter saturation voltage vs.collector current

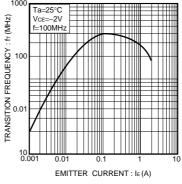


Fig.5 Gain bandwidth product vs. emitter current

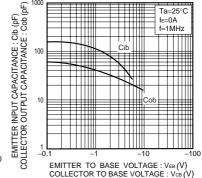


Fig.6 Collector output capacitance vs. collector-base voltage Emitter inputcapacitance vs. emitter-base voltage

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