Low frequency amplifier 2SB1706

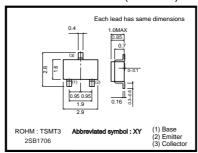
Application

Low frequency amplifier Driver

● Features

- 1) A collector current is large.
- 2) $V_{CE(sat)} \le -370 mV$ At Ic= -1.5A / I_B = -75mA

●External dimensions (Unit: mm)



● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	Vсво	-30	V
Collector-emitter voltage	Vceo	-30	V
Emitter-base voltage	VEBO	-6	V
Collector current	lc	-2	Α
Collector current	ICP	-4	A*1
Power dissipation	Pc	500	mW*2
Junction temperature	Tj	150	°C
Range of storage temperature	Tstg	-55 to +150	ç

●Electrical characteristics (Ta=25°C)

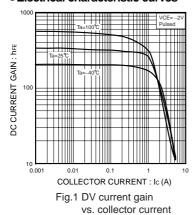
Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	-30	_	_	V	Ic=-10μA
Collector-emitter breakdown voltage	BVceo	-30	_	_	V	Ic=-1mA
Emitter-base breakdown voltage	BVEBO	-6	_	_	V	I _E = -10μA
Collector cutoff curent	Ісво	_	_	-100	nA	Vcb= -30V
Emitter cutoff current	ІЕВО	_	_	-100	nA	V _{EB} = -6V
Collector-emitter saturation voltage	VCE(sat)	_	-180	-370	mV	Ic= -1.5A, I _B = -75mA
DC current gain	hfe	270	_	680	_	Vce= -2V, Ic= -200mA
Transition frequency	f⊤	_	280	_	MHz	Vc=-2V, I=200mA, f=100MHz
Collector output capacitance	Cob	_	20	_	pF	Vcb= -10V, Ie=0A, f=1MHz

^{*1} Single pulse, Pw=1ms *2 Each Terminal Mounted on a Recommended

Packaging specifications

	package	Taping
Туре	Code	TL
	Basic ordering unit(pieces)	3000
2SB1706		0

•Electrical characteristic curves

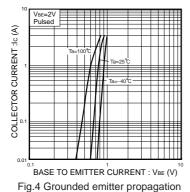


COLLECTOR SATURATION VOLTAGE: VCE(sat) (V) COLLECTOR CURRENT : IC (A)

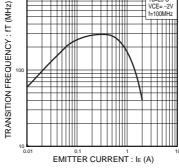
BASE SATURATION VOLTAGE: VBE(sat) (V) COLLECTOR CURRENT : IC (A)

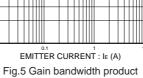
Fig.2 Collector-emitter saturation voltage vs. collector current

Fig.3 Base-emitter saturation voltage vs. collectir current

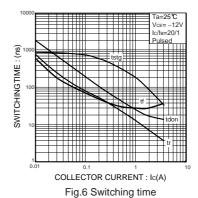


characteristics





vs. emitter curent



COLLECTOR CURRENT :Ic (A)

EMITTER TO BASE VOLTAGE : VBE (V)
COLLECTOR TO BASE VOLTAGE : VCB (V) Fig.7 Collector output capacitance vs. collector-base voltage Emitter input capacitance vs. emitter-base voltage

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