# General purpose amplification(-12V, -2A) **2SB1690K**

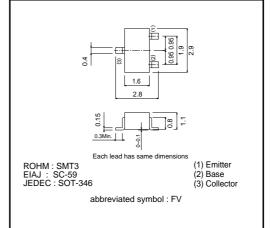
### Applications

Low frequency amplifier Deiver

### Features

- 1) A collector current is large.
- 2) Collector saturation voltage is low.  $V_{CE(sat)} \leq -180 mV$  at Ic=  $-1A / I_B$ = -50 mA

### •External dimensions (Units : 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	Vebo	-6	V	
Collector current	lc	-2	A	
Collector current	IC	-4	A*	
Collector power dissipation	Pc	200	mW	
Junction temperature	Tj	150	°C	
Storage temperature	Tstg	-55 to +150	°C	

\* Single pulse Pw=1ms

### •Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	-15	-	-	V	Ic=-10μA
Collector-emitter breakdown viltage	BVCEO	-12	-	-	V	Ic=-1mA
Emitter-base breakdown voltage	ВVево	-6	-	-	V	Iε=-10μA
Collector cutoff current	Ісво	-	-	-100	nA	Vсв=-15V
Emitter cutoff current	Іево	-	-	-100	nA	Veb=-6V
Collerctor-emitter saturation voltage	VCE(sat)	-	-120	-180	mV	Ic=-1А, Iв=-50mА
DC current transfer ratio	hfe	270	-	680	-	Vce=-2V, Ic=-200mA*
Transition frequency	f⊤	_	360	-	MHz	$V_{CE}$ = -2V, I= -200mA , f=100MHz*
Output capacitance	Cob	_	15	-	pF	Vcb=-10V, Ie=0mA, f=1MHz

\* Pulsed



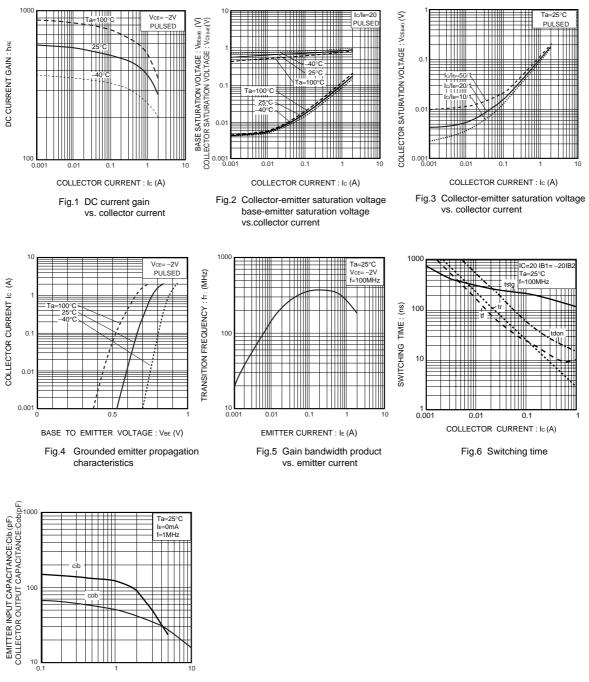
# Packaging specifications

	Package	Taping	
Туре	Code	T146	
	Basic ordering unit (pieces)	3000	

## 2SB1690K

### Transistors

#### •Electrical characteristic curves



EMITTER TO BASE VOLTAGE : VEB (V)

Fig.7 Collector output capacitance vs. collector-base voltage Emitter input capacitance vs. emitter-base voltage

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