# Power Transistor (-15V, -1A) 2SB1590K

# Features

1) Low saturation voltage, V\_{CE(sat)} = -0.3V (Max.) at I\_C / I\_B = -0.4A / -20mA.

2)  $I_{C} = -1A$ 

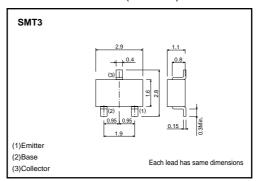
3) Complements the 2SD2444K.

### Packaging specification and h<sub>FE</sub>

Туре	2SB1590K
Package	SMT3
hfe	Q
Marking	BK*
Code	T146
Basic ordering unit (pieces)	3000

\* Denotes hre

#### •External dimensions (Unit : mm)



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

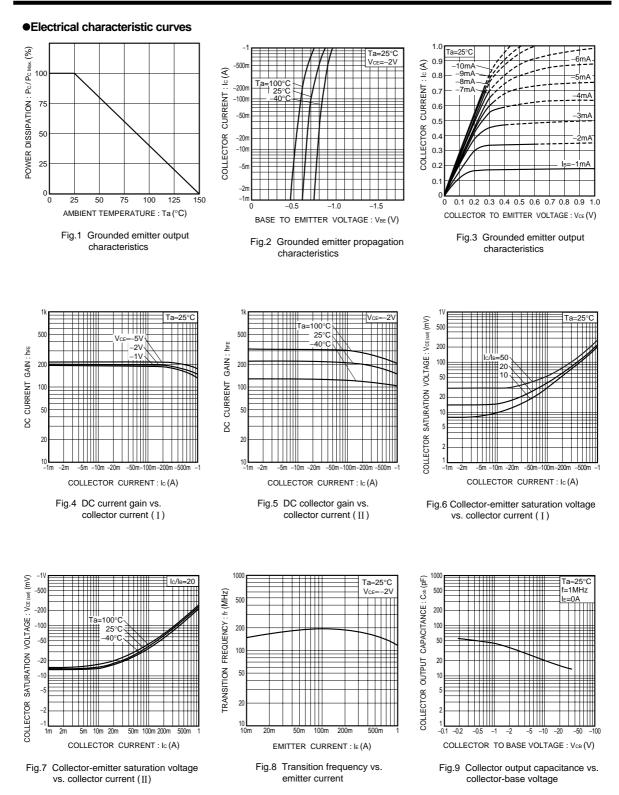
Parameter	Symbol	Limits	Unit			
Collector-base voltage	Vсво	-15	V			
Collector-emitter voltage	Vceo	-15	V			
Emitter-base voltage	Vebo	-6	V			
Collector current	lc	-1	A (DC)			
	Іср	-2	A (pw=10ms)			
Collector power dissipation	Pc	0.2	W			
Junction temperature	Tj	150	°C			
Storage temperature	Tstg	-55 to +150	°C			

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

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions	
Collector-base breakdown voltage	ВУсво	-15	-	-	V	Ic=-50μA	
Collector-emitter breakdown voltage	BVCEO	-15	-	-	V	Ic=-1mA	
Emitter-base breakdown voltage	ВVево	-6	-	-	V	Iε=-50μA	
Collector cutoff current	Ісво	_	-	-0.5	μΑ	Vcb=-12V	
Emitter cutoff current	Іево	-	-	-0.5	μA	Veb=-5V	
Collector-emitter saturation voltage	VCE(sat)	_	-	-0.3	V	Ic=−0.4A, I <sub>B</sub> =−20mA	
DC current transfer ratio	hFE1	120	-	270	-	Vce/Ic=-2V/-0.5A	
	hFE2	80	-	-	-	Vce=-2V, Ic=-800mA	
Transition frequency	fт	_	200	-	MHz	Vce=-2V, Ie=50mA, f=100MHz	
Output capacitance	Cob	_	15	-	pF	Vcb=-10V, Ie=0A, f=1MHz	



# Transistors



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