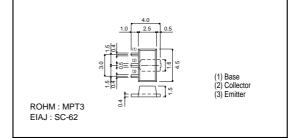
# Power transistor (-20V, -2A) 2SB1427

# Features

- 1) Low saturation voltage,
- $V_{CE}:Max.-0.5V$  at  $I_C/I_B = -1A/-50mA$ .
- 2) Excellent DC current gain characteristics.

### •External dimensions (Unit : mm)



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

Parameter	Symbol	Limits	Unit	
Collector-base voltage	Vсво	-20	V	
Collector-emitter voltage	VCEO	-20	V	
Emitter-base voltage	Vebo	-6	V	
Collector current	lc	-2	A(DC)	
		-3	A(Pulse) *1	
Collector power dissipation	Pc	0.5	W *2	
	FC	2	VV +2	
Junction temperature	Tj	150	°C	
Storage temperature	Tstg	-55 ~ +150	°C	

\*1 Single pulse, Pw=10ms \*2 When mounted on a 40×40×0.7mm ceramic board.

#### Packaging specifications and hFE

Туре	2SB1427
Package	MPT3
hfe	E
Marking	BJ *
Code	T100
Basic ordering unit (pieces)	1000
<b>.</b> ,	

\* Denotes hre

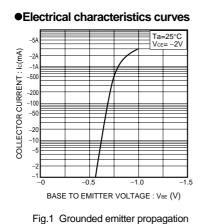
#### •Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions	
Collector-base breakdown voltage	ВУсво	-20	-	-	V	$Ic = -50\mu A$	
Collector-emitter breakdown voltage	BVCEO	-20	-	-	V	Ic=-1mA	
Emitter-base breakdown voltage	ВVево	-6	-	_	V	$I_E = -50 \mu A$	
Collector cutoff current	Ісво	-	-	-0.5	μA	Vcb = -16V	
Emitter cutoff current	Іево	-	-	-0.5	μA	$V_{EB} = -5V$	
Collector-emitter saturation voltage	VCE(sat)	-	-	-0.5	V	$Ic/I_B = -1A/-50mA$	*
DC current transfer ratio	hfe	390	-	820	-	Vce/Ic = -6V/-0.5A	
Transition frequency	fт	-	90	-	MHz	$V_{CE} = -10V$ , $I_E = 10mA$ , $f = 100MHz$	
Output capacitance	Cob	-	30	-	pF	$V_{\text{CB}}{=}{-}10V$ , $I_{\text{E}}{=}0A$ , $f{=}1MHz$	

\* Measured using pulse current.

# 2SB1427

# Transistors



characteristics

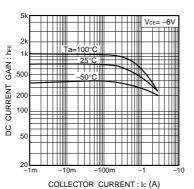


Fig.2 DC current gain vs. collector current

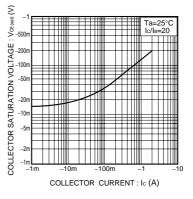
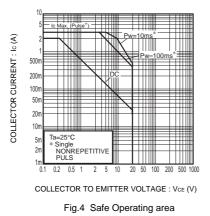


Fig.3 Collector-emitter saturation voltage vs. collector current



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