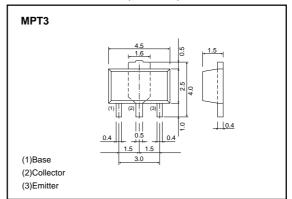
# Power transistor (-50V, -3A)

# 2SB1308

#### Features

- 1) Low saturation voltage, typically  $V_{CE(sat)} = -0.45V \text{ (Max.) at Ic/IB} = -1.5\text{A}/-0.15\text{A}.$
- 2) Excellent DC current gain characteristics.
- 3) Complements the 2SD1963.

# ●External dimensions (Unit : mm)



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

Parameter	Symbol	Limits	Unit	
Collector-base voltage	Vсво	-30	V	
Collector-emitter voltage	VCEO	-20	V	
Emitter-base voltage	Vево	-6	V	
Collector current	lc	-3	A(DC)	
		<b>-</b> 5	A(Pulse) *1	
Collector power dissipation	Pc	0.5	W	
	PC	2.0	W *2	
Junction temperature	Tj	150	°C	
Storage temperature	Tstg	-55 to 150	°C	

<sup>\*1</sup> Single pulse, Pw=10ms

# ●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	-30	-	-	V	Ic= -50μA
Collector-emitter breakdown voltage	BVceo	-20	-	-	V	Ic=-1mA
Emitter-base breakdown voltage	ВУево	-6	-	-	V	I==-50μA
Collector cutoff current	Ісво	-	-	-0.5	μΑ	VcB= -20V
Emitter cutoff current	ІЕВО	-	-	-0.5	μΑ	V <sub>EB</sub> = -5V
DC current transfer ratio	hfe	82	-	390	-	Vc=-2V, Ic=-0.5A *
Collector-emitter saturation voltage	VCE(sat)	-	-	-0.45	V	Ic/I <sub>B</sub> = -1.5A/ -0.15A *
Transition frequency	f⊤	_	120	-	MHz	Vc=-6V, I=50mA, f=100MHz
Output capacitance	Cob	-	60	-	pF	Vcb= -20V, Ie=0A, f=1MHz

<sup>\*</sup> Measured using pulse current.

<sup>\*2</sup> When mounted on a 40×40×0.7 mm ceramic board.

# ●Packaging specifications and hFE

Туре	2SB1308
Package	MPT3
hfe	PQR
Marking	BF*
Code	T100
Basic ordering unit (pieces)	1000

<sup>\*</sup> Denotes her

# ●Electrical characteristic curves

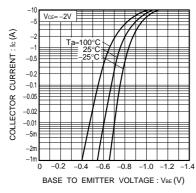


Fig.1 Grounded emitter propagation characteristics

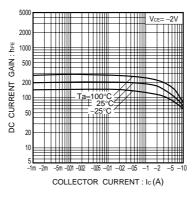


Fig.2 DC current gain vs. collector current

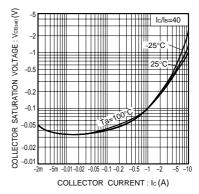


Fig.3 Collector-emitter saturation voltage vs. collector current

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