Power Transistor (-50V, -2A) 2SB1443

● Features

- 1) Low saturation voltage. VCE (sat) = -0.35V (Max.) at Ic / IB = -1A/-50mA.
- 2) Excellent DC current gain characteristics.

● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit	
Collector-base voltage	Vсво	-50	V	
Collector-emitter voltage	Vceo	-50	V	
Emitter-base voltage	VEBO	-6	V	
Collector current	lc	-2	A (DC)	
		-5	A (Pulse) *1	
Collector power dissipation	Pc	1	W *2	
Junction temperature	Tj	150	°C	
Storage temperature	Tstg	-55~+150	°C	

^{*1} Single pulse, Pw=10ms

●Packaging specifications and hFE

Туре	2SB1443
Package	ATV
hfe	Q
Marking	_
Code	TV2
Basic ordering unit (pieces)	2500

^{*}Denotes hre

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions	
Collector-base breakdown voltage	ВУсво	-50	_	_	V	Ic=-50μA	
Collector-emitter breakdown voltage	BVceo	-50	_	-	V	Ic=-1mA	
Emitter-base breakdown voltage	ВVево	-6	_	-	V	I _E =-50μA	
Collector cutoff current	Ісво	_	-	-0.1	μΑ	VcB=-50V	
Emitter cutoff current	Ієво	-	-	-0.1	μΑ	V _{EB} =-5V	
Collector-emitter saturation voltage	VCE(sat)	-	-0.15	-0.35	V	Ic/I _B =-1A/-50mA	*
DC current transfer ratio	hfe	120	-	270	_	Vce/Ic=-2V/-0.5A	
Transition frequency	f⊤	_	200	_	MHz	Vce=-2V, Ie=0.5A, f=100MHz	
Output capacitance	Cob	-	36	-	pF	Vcb=-10V, IE=0A, f=1MHz	*

^{*} Measured using pulse current

^{*2} Printed circuit board 1.7mm thick, collector plating 1cm² or larger.

●電気的特性曲線

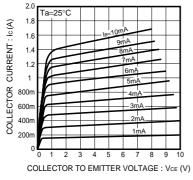


Fig.1 Grounded emitter output characteristics

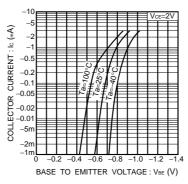


Fig.2 Grounded emitter propagation characteristics

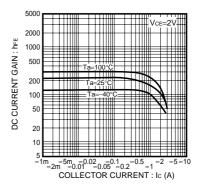


Fig.3 DC current gain vs. collector current

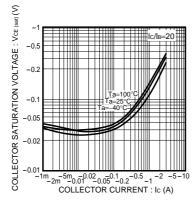


Fig.4 Collector-emitter saturation voltage vs. collector current

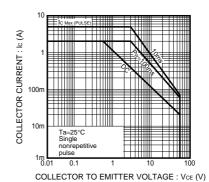


Fig.5 Safe operating area

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