Power Transistor (−50V, −2A)

2SA1797 / 2SB1443

●**Features**

1) Low saturation voltage, $V_{CE(sat)}$ = −0.35V (Max.) at I_C / I_B = −1A / −50mA.
2) Excellent DC current gain characteristics.
3) Complements the 2SA1797 and 2SC4672.

●**Packaging specifications and h_{FE}**

Type	2SA1797	2SB1443
Package	MPT3	ATV
h_{FE}	PQ	Q
Marking	AG*	—
Code	T100	TV2
Basic ordering unit (pieces)	1000	2500

* Denotes h_{FE}

●**Absolute maximum ratings (Ta=25℃)**

Parameter		Symbol	Limits	Unit	
Collector-base voltage		V_{CBO}	−50	V	
Collector-emitter voltage		V_{CEO}	−50	V	
Emitter-base voltage		V_{EBO}	−6	V	
Collector current		I_C	−2	A (DC)	
			−5	A (Pulse)	*1
Collector power dissipation	2SA1797	P_C	0.5	W	
			2		*2
	2SB1443		1		*3
Junction temperature		Tj	150	℃	
Storage temperature		Tstg	−55～+150	℃	

*1 Single pulse Pw=10ms
*2 When mounted on a 40×40×0.7mm ceramic board.
*3 Printed circuit board 1.7mm thick, collector plating 1cm² or larger.

●**Electrical characteristics (Ta=25℃)**

Parameter		Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage		BV_{CBO}	−50	—	—	V	I_C=−50 μA
Collector-emitter breakdown voltage		BV_{CEO}	−50	—	—	V	I_C=−1mA
Emitter-base breakdown voltage		BV_{EBO}	−6	—	—	V	I_E=−50 μA
Collector cutoff current		I_{CBO}	—	—	−0.1	μA	V_{CB}=−50V
Emitter cutoff current		I_{EBO}	—	—	−0.1	μA	V_{EB}=−5V
Collector-emitter saturation voltage		$V_{CE(sat)}$	—	−0.15	−0.35	V	I_C/I_B=−1A/−50mA *
DC current transfer ratio	2SA1797	h_{FE}	82	—	270	—	V_{CE}/I_C=−2V/−0.5A
	2SB1443		120	—	270	—	
Transition frequency		f_T	—	200	—	MHz	V_{CE}=−2V , I_E=0.5A , f=100MHz *
Output capacitance		Cob	—	36	—	pF	V_{CB}=−10V , I_E=0A , f=1MHz

* Measured using pulse current.

(96-100-B208)

Low Frequency Transistor (50V, 2A)

2SC4672

●**Features**

1) Low saturation voltage, typically $V_{CE(sat)}$ =0.1V at I_C / I_B=1A / 50mA.
2) Excellent DC current gain characteristics.
3) Complements the 2SA1797.

●**Packaging specifications and h_{FE}**

Type	2SC4672
Package	MPT3
h_{FE}	PQ
Marking	DK*
Code	T100
Basic ordering unit (pieces)	1000

* Denotes h_{FE}

●**Absolute maximum ratings (Ta=25℃)**

Parameter	Symbol	Limits	Unit	
Collector-base voltage	V_{CBO}	60	V	
Collector-emitter voltage	V_{CEO}	50	V	
Emitter-base voltage	V_{EBO}	6	V	
Collector current	I_C	2	A (DC)	
		5	A (Pulse)	*
Collector power dissipation	P_C	0.5	W	
Junction temperature	Tj	150	℃	
Storage temperature	Tstg	−55～+150	℃	

* Single pulse, Pw=10ms

●**Electrical characteristics (Ta=25℃)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	60	—	—	V	I_C=50 μA
Collector-emitter breakdown voltage	BV_{CEO}	50	—	—	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	6	—	—	V	I_E=50 μA
Collector cutoff current	I_{CBO}	—	—	0.1	μA	V_{CB}=60V
Emitter cutoff current	I_{EBO}	—	—	0.1	μA	V_{EB}=5V
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	0.1	0.35	V	I_C/I_B=1A/50mA *
DC current transfer ratio	h_{FE}	82	—	270	—	V_{CE}=2V , I_C=0.5A *
Transition frequency	f_T	—	210	—	MHz	V_{CE}=2V , I_E=−0.5A , f=100MHz
Output capacitance	Cob	—	25	—	pF	V_{CB}=10V , I_E=0A , f=1MHz

* Measured using pulse current.

(96-181-D208)