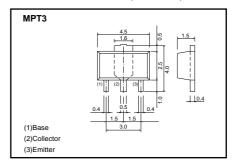
Medium power transistor (-50V, -1A) 2SA1900

Features

- 1) Low saturation voltage, typically $V_{\text{CE(sat)}} = -0.15 \text{V}$ at $I_{\text{C}}/$ $I_B = -500 mA / -50 mA$
- 2) P_C=2W (on 40×40×0.7mm ceramic board)
- 3) Complements the 2SC5053

●External dimensions (Unit : mm)



Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit	
Collector-base voltage	Vсво	-60	V	
Collector-emitter voltage	Vceo	-50	V	
Emitter- base voltage	VEBO	-5	V	
Collector current	lo.	-1	Α	
	lc lc	-2	A (Pulse) *1	
Collector power dissipation	Pc	0.5	W	
	PC	2	W *2	
Collector power dissipation	Tj	150	°C	
Storage temperature	T _{stg}	-55 to +150	°C	

●External dimensions (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	-60	-	-	V	Ic=-50μA
Collector-emitter breakdown voltage	BVceo	-50	-	-	V	Ic=-1mA
Emitter-base breakdown voltage	BV _{EBO}	-5	_	-	V	Iε=-50μA
Collector cutoff current	Ісво	_	_	-0.1	μΑ	V _{CB} =-40V
Emitter cutoff current	IEBO	_	_	-0.1	μΑ	V _{EB} =-4V
Collector-emitter saturation voltage	V _{CE(sat)}	_	_	-0.4	V	Ic/IB=-500mA/-50mA
DC current transfer ratio	hfe	120	_	270	_	Vce/lc=-3V/-0.5A
Transition frequency	f⊤	-	150	-	MHz	Vce=-5V , Ie=50mA , f=100MHz
Output capacitance	Cob	-	20	-	pF	Vcb=-10V , Ie=0A , f=1MHz

●Packaging specifications and hFE

Туре	2SA1900
Package	MPT3
h _{FE}	Q
Marking	AL *
Code	T100
Basic ordering unit (pleces)	1000

^{*} Denotes her

^{*1} Single pulse Pw=20ms, Duty=1/2 *2 When mounted on a 40×40×0.7mm seramic board.

•Electric characteristics curves

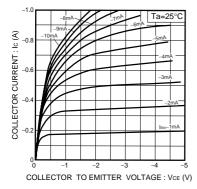


Fig.1 Grounded emitter output characteristics

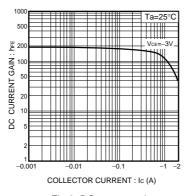


Fig.2 DC current gain vs. collector current

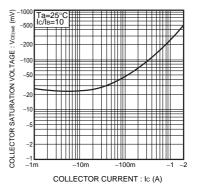


Fig.3 Collector-emitter saturation voltage vs.collector current

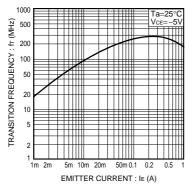


Fig.4 Gain bandwith product vs. emitter current

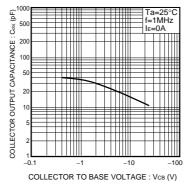


Fig.5 Collector output capacitance vs. collector-base voltage

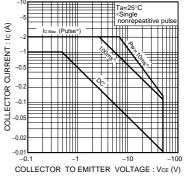


Fig.6 Safe operating area

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