Medium Power Transistor（$-50V$, $-1A$）
2SA1900

● Features

1）Low saturation voltage, typically $V_{CE(sat)} = -0.15V$ at I_C / $I_B = -500mA$ / $-50mA$.

2）$P_C = 2W$（on $40 \times 40 \times 0.7$ mm ceramic board.）

3）Complements the 2SC5053.

●Packaging specifications and h_{FE}

Type	2SA1900
Package	MPT3
h_{FE}	Q
Marking	AL✳
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}	-5	V	
Collector current	I_C	-1	A	
		-2	A (Pulse)	✳1
Collector power dissipation	P_C	0.5	W	
		2	W	✳2
Junction temperature	T_j	150	℃	
Storage temperature	T_{stg}	$-55 \sim +150$	℃	

✳1 Single pulse Pw=10ms, Duty=1／2
✳2 When mounted on a $40 \times 40 \times 0.7$ mm ceramic board.

●Electrical characteristics（Ta=25℃）

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	-60	—	—	V	$I_C = -50\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	-50	—	—	V	$I_C = -1mA$
Emitter-base breakdown voltage	BV_{EBO}	-5	—	—	V	$I_E = -50\mu A$
Collector cutoff current	I_{CBO}	—	—	-0.1	μA	$V_{CB} = -40V$
Emitter cutoff current	I_{EBO}	—	—	-0.5	μA	$V_{EB} = -4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	-0.4	V	$I_C/I_B = -500mA/-50mA$
DC current transfer ratio	h_{FE}	120	—	270	—	$V_{CE}/I_C = -3V/-0.5A$
Transition frequency	f_T	—	150	—	MHz	$V_{CE} = -5V$, $I_E = 50mA$, $f = 100MHz$
Output capacitance	C_{ob}	—	20	—	pF	$V_{CB} = -10V$, $I_E = 0A$, $f = 1MHz$

(96-115-B352)

Medium Power Transistor（50V, 1A）
2SC5053

●Features

1）Low saturation voltage, typically $V_{CE(sat)} = 0.12V$ at I_C / $I_B = 500mA$ / $50mA$.

2）$P_C = 2W$ (on $40 \times 40 \times 0.7$ mm ceramic board)

3）Complements the 2SA1900

●Packaging specifications and h_{FE}

Type	2SC5053
Package	MPT3
h_{FE}	QR
Marking	CG✳
Code	T100
Basic ordering nuit (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}	5	V	
Collector current	I_C	1	A (DC)	
		2	A (Pulse)	✳1
Collector power dissipation	P_C	0.5	W	
		2	W	✳2
Junction temperature	T_j	150	℃	
Storage temperature	T_{stg}	$-55 \sim +150$	℃	

✳1 Single pulse Pw=20ms, Duty=1／2
✳2 When mounted on a $40 \times 40 \times 0.7$ mm ceramic board.

●Electrical characteristics（Ta=25℃）

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	60	—	—	V	$I_C = 50\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	50	—	—	V	$I_C = 1mA$
Emitter-base breakdown voltage	BV_{EBO}	5	—	—	V	$I_E = 50\mu A$
Collector cutoff current	I_{CBO}	—	—	0.1	μA	$V_{CB} = 40V$
Emitter cutoff current	I_{EBO}	—	—	0.1	μA	$V_{EB} = 4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	0.4	V	$I_C/I_B = 500mA/50mA$
DC current transfer ratio	h_{FE}	120	—	390	—	$V_{CE}/I_C = 3V/0.5A$
Transition frequency	f_T	—	150	—	MHz	$V_{CE} = 5V$, $I_E = -50mA$, $f = 100MHz$
Output capacitance	C_{ob}	—	15	—	pF	$V_{CB} = 10V$, $I_E = 0A$, $f = 1MHz$

(96-196-D352)