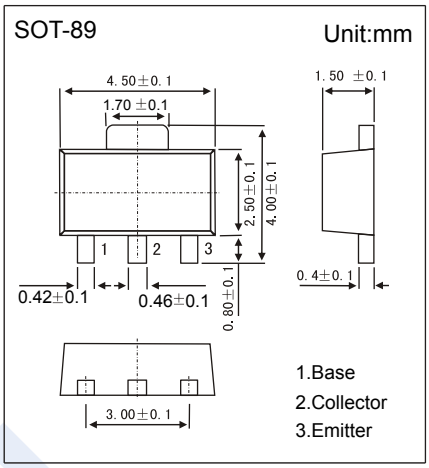
PNP Transistors

2SA1900



■ Features

- Collector Current Capability I_C=-1A
- Collector Emitter Voltage V_{CEO}=-50V
- Complements the 2SC5053

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-60	V
Collector - Emitter Voltage	V_{CEO}	-50	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-1	A
Collector Current - Pulse	I_{CP}	-2	
Collector Power Dissipation (Note.1)	P_C	0.5	W
		2	
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

Note.1: When mounted on a 40X40X0.7mm seramic board.

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= -100 μA, I_E=0	-60			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= -1 mA, I_B=0	-50			
Emitter - base breakdown voltage	V_{EBO}	I_E= -100 μ A, I_C=0	-5			
Collector-base cut-off current	I_{CBO}	V_{CB}= -40 V , I_E=0			-100	nA
Emitter cut-off current	I_{EBO}	V_{EB}= -4V , I_C=0			-100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA, I_B=-50mA			-0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=-500mA, I_B=-50mA			-1.2	
DC current gain	h_{FE}	V_{CE}= -3V, I_C= -0.5A	120		270	
Collector output capacitance	C_{ob}	V_{CB}= -10V, I_E=0,f=1MHz		20		pF
Transition frequency	f_T	V_{CE}= -5V, I_E= 50mA,f=100MHz		150		MHz

■ Marking

Marking	ALQ*

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■ Typical Characterisitics

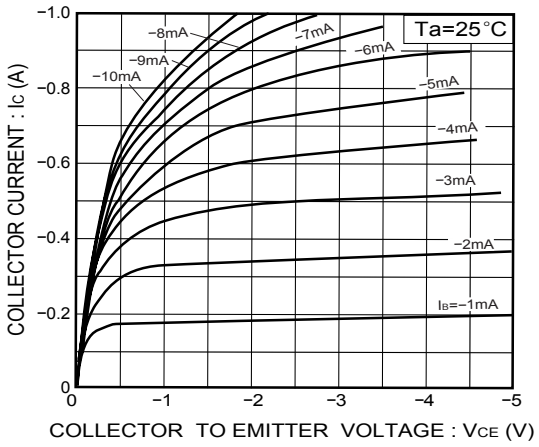

Fig.1 Grounded emitter output characteristics

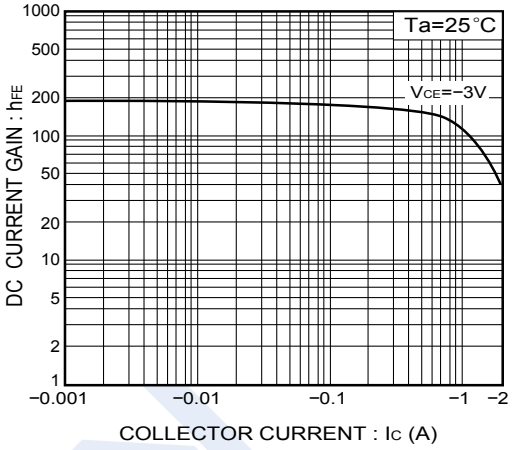

Fig.2 DC current gain vs. collector current

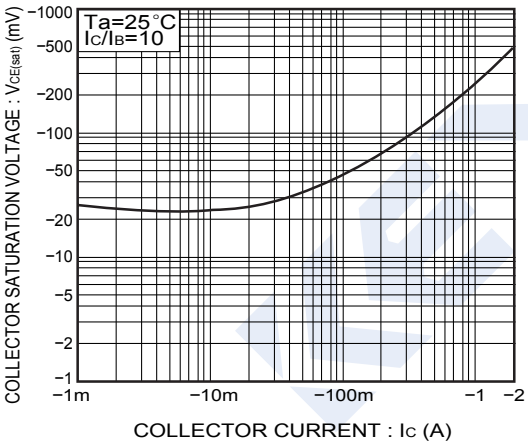

Fig.3 Collector-emitter saturation voltage vs.collector current

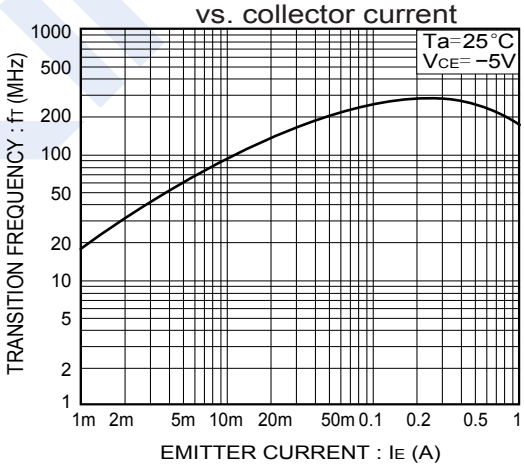

Fig.4 Gain bandwith product vs. emitter current

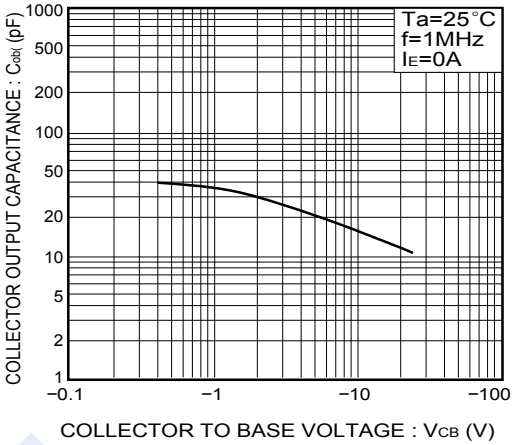

Fig.5 Collector output capacitance vs. collector-base voltage

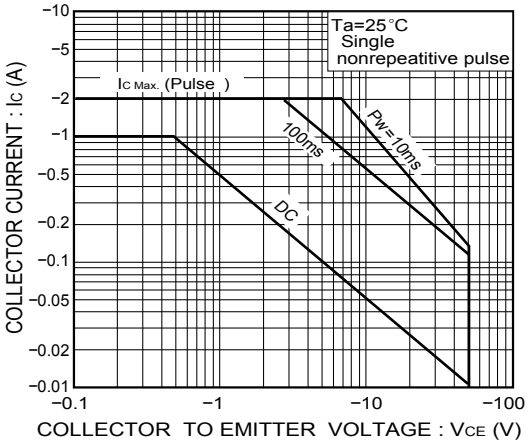

Fig.6 Safe operating area