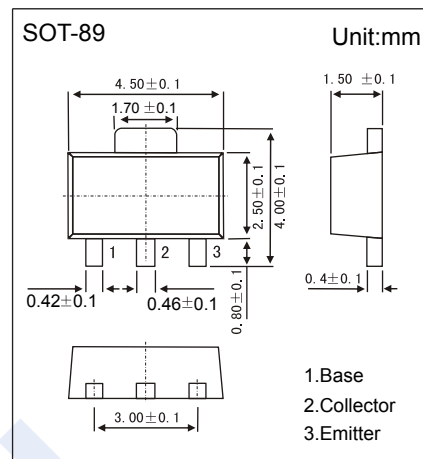


PNP Transistors

2SA1759

■ Features

- Collector Current Capability $I_C = -0.1A$
- Collector Emitter Voltage $V_{CE0} = -400V$
- High switching speed
- Complements to 2SC4505

■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-400	V
Collector - Emitter Voltage	V_{CEO}	-400	
Emitter - Base Voltage	V_{EBO}	-7	
Collector Current - Continuous	I_C	-0.1	A
Collector Current - Pulse	I_{CP}	-0.2	
Collector Power Dissipation (Note.1)	P_C	0.5	W
		2	
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature range	T_{stg}	-55 to 150	

Note.1: When mounted on a 40×40×0.7 mm ceramic board.

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100 \mu A, I_E = 0$	-400			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1 mA, I_B = 0$	-400			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu A, I_C = 0$	-7			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -400 V, I_E = 0$			-10	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6 V, I_C = 0$			-1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -20 mA, I_B = -2 mA$			-0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -20 mA, I_B = -2 mA$			-1.5	
DC current gain	h_{FE}	$V_{CE} = -10 V, I_C = -10 mA$	82		180	
Turn-on time	t_{on}	$I_C = -100 mA, R_L = 1.5 k\Omega$ $I_{B1} = -I_{B2} = -10 mA$ $V_{CC} = 150 V$		0.7		μs
Storage time	t_{stg}			1.8		
Fall time	t_f			1		
Collector output capacitance	C_{ob}	$V_{CB} = -10 V, I_E = 0, f = 1 MHz$		13		pF
Transition frequency	f_T	$V_{CE} = -10 V, I_E = -10 mA, f = 5 MHz$		12		MHz

■ Classification of h_{FE}

Range	82-180
Marking	AHP

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■ Typical Characteristics

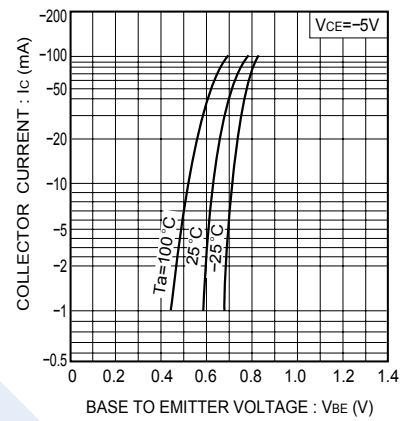
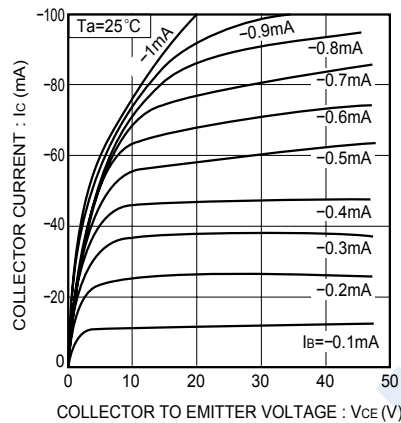
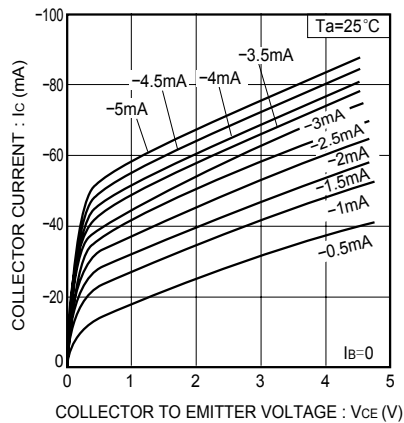


Fig.1 Ground emitter output characteristics (I) Fig.2 Ground emitter output characteristics (II) Fig.3 Ground emitter propagation characteristics

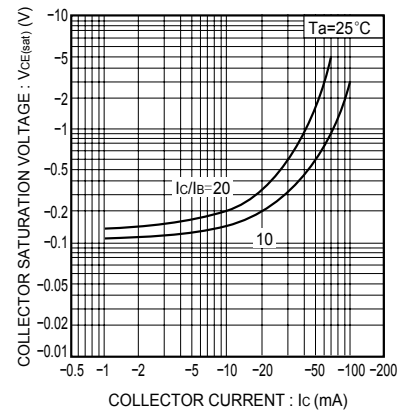
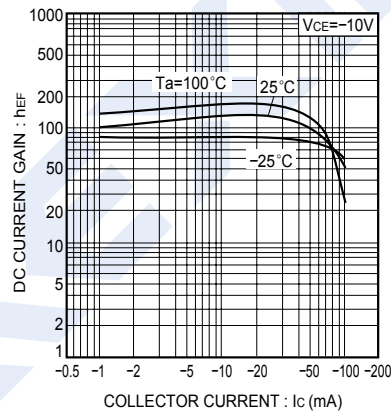
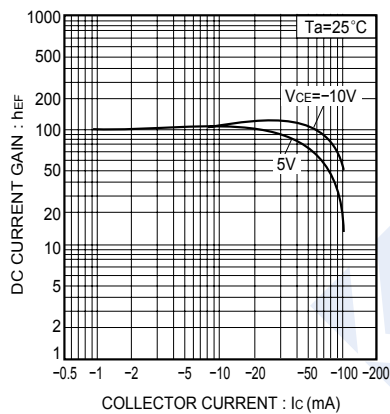


Fig.4 DC current gain vs. collector current (I) Fig.5 DC current gain vs. collector current (II) Fig.6 Collector-emitter saturation voltage vs. collector current

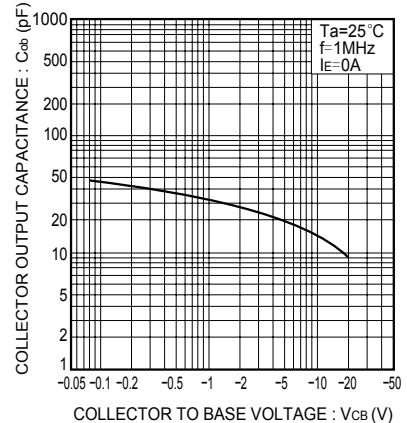
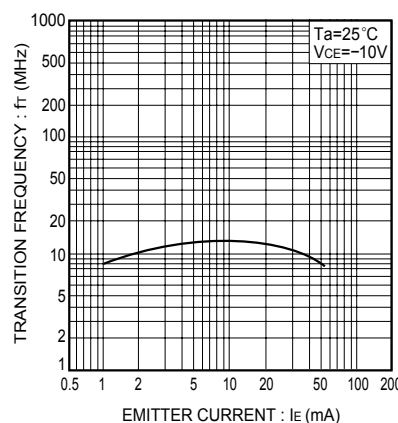
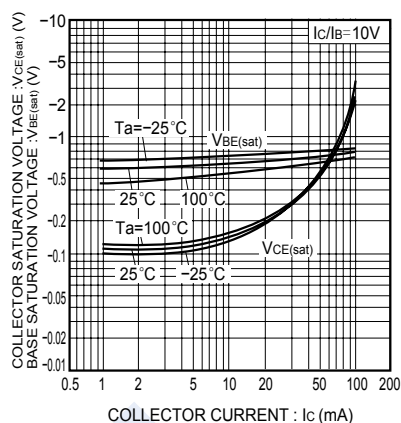


Fig.7 Collector-emitter saturation voltage vs. Collector current

Fig.8 Gain bandwidth products vs. emitter current

Fig.9 Collector output capacitance vs. collector-base voltage

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■ Typical Characteristics

