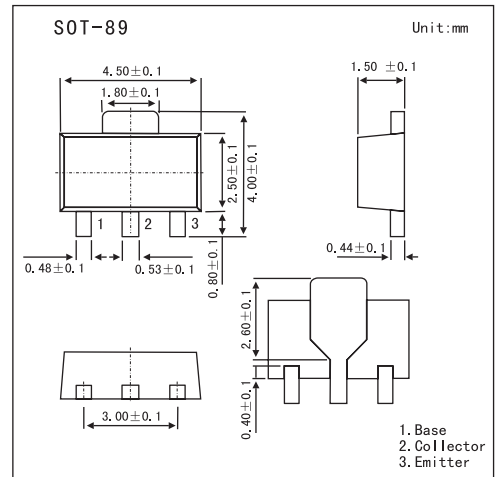


■ Features

- High current.
- Three current gain selections.
- 1.2 W total power dissipation.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	-32	V
Collector-emitter voltage	V <sub>CEO</sub>	-20	V
Emitter-base voltage	V <sub>EBO</sub>	-5	V
Collector current	I <sub>C</sub>	-1	A
Peak collector current	I <sub>CM</sub>	-2	A
Peak base current	I <sub>BM</sub>	-200	mA
Total power dissipation	P <sub>tot</sub>	*1 and *2	0.5
		*1 and *3	0.85
		*1 and *4	1.2
Storage temperature	T <sub>stg</sub>	-65 to +150	°C
Junction temperature	T <sub>j</sub>	150	°C
Operating ambient temperature	R <sub>amb</sub>	-65 to +150	°C
Thermal resistance from junction to ambient	R <sub>th(j-a)</sub>	*1 and *2	250
		*1 and *3	147
		*1 and *4	104
Thermal resistance from junction to solder point	R <sub>th(j-s)</sub>	20	K/W

\*1.Refer to SOT89 standard mounting conditions.

\*2.Device mounted on an FR4 printed-circuit board, single-sided copper, tin-plated footprint.

\*3.Device mounted on an FR4 printed-circuit board, single-sided copper, tin-plated, mounting pad for collector 1 cm<sup>2</sup>.

\*4.Device mounted on an FR4 printed-circuit board, single-sided copper, tin-plated, mounting pad for collector 6 cm<sup>2</sup>.

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	ICBO	V <sub>CB</sub> = -25 V, I <sub>E</sub> = 0			-100	nA
		V <sub>CB</sub> = -25 V, I <sub>E</sub> = 0; T <sub>j</sub> = 25°C			-10	μA
Emitter cutoff current	IEBO	VEB = -5 V, I <sub>C</sub> = 0			-100	nA
DC current gain	BC868	hFE	I <sub>C</sub> = -5 mA; V <sub>CE</sub> = -10 V	50		
		hFE	I <sub>C</sub> = -500 mA; V <sub>CE</sub> = -1 V	85		375
		hFE	I <sub>C</sub> = -1 A; V <sub>CE</sub> = -1 V	60		
	BC868-16	hFE	I <sub>C</sub> = -500 mA; V <sub>CE</sub> = -1 V	100		250
BC869-25	hFE	I <sub>C</sub> = -500 mA; V <sub>CE</sub> = -1 V	160		375	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -1 A; I <sub>B</sub> = -100 mA			-500	mV
Base to emitter voltage	V <sub>BE</sub>	I <sub>C</sub> = -5 mA; V <sub>CE</sub> = -10 V			-700	mV
		I <sub>C</sub> = -1 A; V <sub>CE</sub> = -1 V			-1	V
Collector capacitance	C <sub>c</sub>	I <sub>E</sub> = I <sub>e</sub> = 0; V <sub>CB</sub> = -10 V; f = 1 MHz		28		pF
Transition frequency	f <sub>t</sub>	I <sub>C</sub> = -50 mA; V <sub>CE</sub> = -5 V; f = 100 MHz	40	140		MHz

■ hFE Classification

TYPE	BC869	BC869-16	BC869-25
Marking	CEC	CGC	CHC