

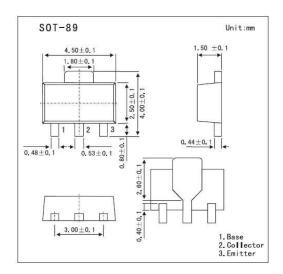
## **PNP Medium Power Transistor**

#### **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		Vсво	-32	V	
Collector-emitter voltage		VCEO	-20	V	
Emitter-base voltage		VEBO	-5	V	
Collector current		Ic	-1	Α	
Peak collector current		Ісм	-2	Α	
Peak base current		Івм	-200	mA	
Total power dissipation	*1 and *2		0.5	W	
	*1 and *3	Ptot	0.85	W	
	*1 and *4		1.2	W	
Storage temperature		Tstg	-65 to +150	$^{\circ}$ C	
Junction temperature		Tj	150	°C	
Operating ambient temperature		Ramb	-65 to +150	°C	
Thermal resistance from junction to ambient *1 and *2			250	K/W	
	*1 and *3	Rth(j-a)	147	K/W	
	*1 and *4		104	K/W	
Thermal resistance from junction to solder point		Rth(j-s)	20	K/W	

<sup>\*1.</sup>Refer to SOT89 standard mounting conditions.

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

<sup>\*3.</sup>Device mounted on an FR4 printed-circuit board, single-sided copper, tin-plated, mounting pad for collector 1 cm2.

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



# BC869

## ■ Electrical Characteristics Ta = 25°C

Parameter		Symbol	Testconditons	Min	Тур	Max	Unit
College of the second		lone	Vcs = -25 V, IE = 0			-100	nA
Collector cutoff current		Ісво	VcB = -25 V, IE = 0; Tj = 25 °C			-10	μΑ
Emitter cutoff current	er cutoff current		VEB = -5 V, IC = 0			-100	nA
DC current gain		hFE	Ic = -5 mA; VcE = -10 V	50			
	BC 869		Ic = -500 mA; VcE = -1 V	85		375	
			Ic = -1 A; VcE = -1 V	60			
	BC869-16	hFE	Ic = -500 mA; VcE = -1 V	100	100 2	250	
	BC869-25	hre	Ic = -500 mA; VcE = -1 V	160		375	
Collector-emitter saturation	ollector-emitter saturation voltage		Ic = -1 A; IB = -100 mA			-500	mV
Paca to amittar valtage	nitter voltage		Ic = -5 mA; VcE = -10 V			-700	mV
base to emitter voltage			Ic = -1 A; VcE = -1 V			-1	V
collector capacitance		Cc	IE = Ie = 0; Vc8 = -10 V; f = 1 MHz		28		pF
ransition frequency		fr	Ic = -50 mA; VcE = -5 V; f = 100 MHz	40	140		MHz

## ■ hFE Classification

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

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