

SOT-89-3L Plastic-Encapsulate Transistors

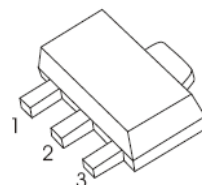
BC869 TRANSISTOR (PNP)

FEATURES

- NPN Complement to BC868
- Low Voltage
- High Current

SOT-89-3L

1. BASE
2. COLLECTOR
3. EMITTER



MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-32	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-1	A
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	$^{\circ}\text{C/W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-32			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$	-20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-25\text{V}, I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-5\text{V}, I_C=0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=-10\text{V}, I_C=-5\text{mA}$	50			
	$h_{FE(2)}$	$V_{CE}=-1\text{V}, I_C=-0.5\text{A}$	100		375	
	$h_{FE(3)}$	$V_{CE}=-1\text{V}, I_C=-1\text{A}$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-1\text{A}, I_B=-0.1\text{A}$			-0.5	V
Base -emitter voltage	V_{BE}	$V_{CE}=-1\text{V}, I_C=-1\text{A}$			-1	V
		$V_{CE}=-10\text{V}, I_C=-5\text{mA}$		-0.62		V
Transition frequency	f_T	$V_{CE}=-5\text{V}, I_C=-10\text{mA}, f=100\text{MHz}$	40			MHz

CLASSIFICATION OF $h_{FE(2)}$

RANK	BC869	BC869-16	BC869-25
RANGE	100 - 375	100 - 250	160 - 375
MARKING	CEC	CGC	CHC