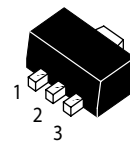


### PNP Plastic-Encapsulate Transistor

 Lead(Pb)-Free

1. BASE  
2. COLLECTOR  
3. EMITTER



**SOT-89**

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

Rating	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	-32	V
Collector-Emitter Voltage	$V_{CEO}$	-20	V
Emitter-Base Voltage	$V_{EBO}$	-5.0	V
Collector Current Continuous	$I_C$	-1.0	A
Total Device Dissipation $T_A=25^{\circ}\text{C}$	$P_D$	500	mW
Junction Temperature Range	$T_J$	+150	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	-65 to +150	$^{\circ}\text{C}$

### OFF CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
Collector-Base Breakdown Voltage, $I_C = -0.1\text{mA}$ , $I_E = 0$	$V(BR)_{CBO}$	-32	-	V
Collector-Emitter Breakdown Voltage, $I_C = -1\text{mA}$ , $I_B = 0$	$V(BR)_{CEO}$	-20	-	V
Emitter-Base Breakdown Voltage, $I_E = -0.1\text{mA}$ , $I_C = 0$	$V(BR)_{EBO}$	-5.0	-	V
Collector Cut-off Current, $V_{CB} = -25\text{V}$ , $I_E = 0$	$I_{CBO}$	-	-0.1	$\mu\text{A}$
Emitter Cut-off Current, $V_{EB} = -5.0\text{V}$ , $I_C = 0$	$I_{EBO}$	-	-0.1	$\mu\text{A}$

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted) (Continued)

Characteristics	Symbol	Min	Typ	Max	Unit
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**ON CHARACTERISTICS**

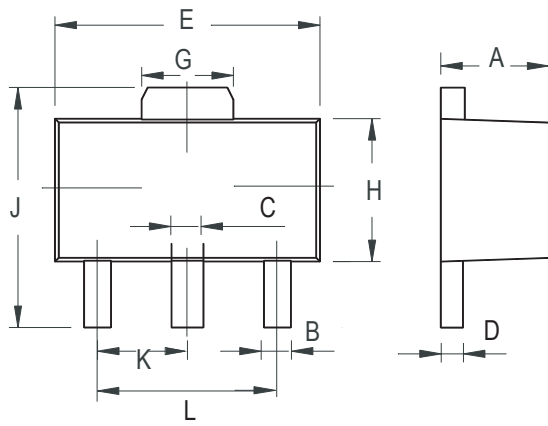
DC Current Gain $V_{CE} = -10\text{V}$ , $I_C = -5.0\text{mA}$	$h_{FE1}$	50	-	-	
$V_{CE} = -1.0\text{V}$ , $I_C = -500\text{mA}$	$h_{FE2}$	100	-	375	-
$V_{CE} = -1.0\text{V}$ , $I_C = -1.0\text{A}$	$h_{FE3}$	60	-	-	
Collector-Emitter Saturation Voltage $I_C = -1.0\text{A}$ , $I_B = -100\text{mA}$	$V_{CE(sat)}$	-	-	-0.5	V
Base-Emitter Voltage $V_{CE} = -1.0\text{V}$ , $I_C = -1.0\text{A}$	$V_{BE(on)}$	-	-	-1.0	V
Transition Frequency $V_{CE} = -5\text{V}$ , $I_C = -10\text{mA}$ , $f = 100\text{MHz}$	$f_T$	40	-	-	MHz

**DEVICE MARKING**

Rank	BC869	BC869-16	BC869-25
Range	100-375	100-250	160-375
Marking	CEC	CGC	CHC

SOT-89 Outline Dimensions

unit:mm



SOT-89		
Dim	Min	Max
A	1.400	1.600
B	0.320	0.520
C	0.360	0.560
D	0.350	0.440
E	4.400	4.600
G	1.400	1.800
H	2.300	2.600
J	3.940	4.250
K	1.500TYP	
L	2.900	3.100