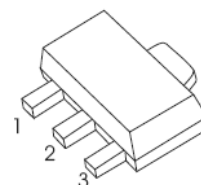


Features

- For general AF applications
- High collector current
- High current gain
- Low collector-emitter saturation voltage
- Complementary type: GSBCX68 (NPN)



SOT-89-3L

1. BASE
2. COLLECTOR
3. EMITTER

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	-25	V
Collector-Emitter Voltage	V_{CEO}	-20	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-1	A
Collector Power Dissipation	P_C	0.8	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$

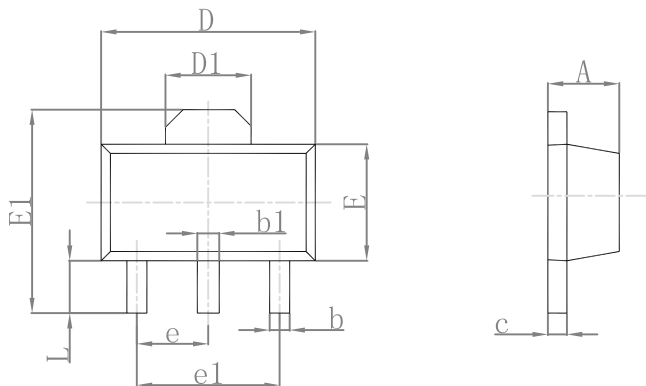
Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Conditions	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}$, $I_E=0$	-25	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-30\text{mA}$, $I_B=0$	-20	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-1\mu\text{A}$, $I_C=0$	-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	$h_{FE(1)}$ ¹⁾	$V_{CE}=-1\text{V}$, $I_C=-500\text{mA}$	85	-	375	-
			85		160	
			100		250	
	$h_{FE(2)}$ ¹⁾	$V_{CE}=-10\text{V}$, $I_C=-5\text{mA}$	-	-	-	
	$h_{FE(3)}$ ¹⁾	$V_{CE}=-1\text{V}$, $I_C=-1\text{A}$	60	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-1\text{A}$, $I_B=-100\text{mA}$	-	-	-0.5	V
Base-Emitter Voltage	$V_{BE(ON)}$ ¹⁾	$I_C=-5\text{mA}$, $V_{CE}=-10\text{V}$ $I_C=-1\text{A}$, $V_{CE}=-1\text{V}$	-	-0.6	-1	V
Transition Frequency	f_T	$V_{CE}=-5\text{V}$, $I_C=-100\text{mA}$ $f=20\text{MHz}$	-	100	-	MHz

1) Pulse test: $t \leq 300\mu\text{s}$, $D = 2\%$

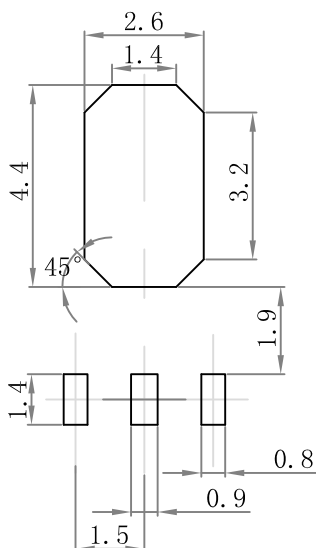
Package Outline Dimensions

SOT-89-3L



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.05 mm.
 3. The pad layout is for reference purposes only.

Marking and Ordering Information

Device	Package	Marking	Quality	HSF Status
GSBCX69	SOT-89-3L	CE1	1000pcs/Reel	RoHS Compliant
GSBCX69-10	SOT-89-3L	CF1	1000pcs/Reel	RoHS Compliant
GSBCX69-16	SOT-89-3L	CG1	1000pcs/Reel	RoHS Compliant
GSBCX69-25	SOT-89-3L	CH1	1000pcs/Reel	RoHS Compliant