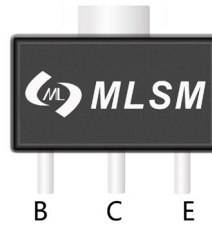
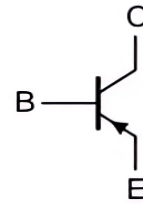


Features

- For general AF applications
- High collector current
- High current gain
- Low collector-emitter saturation voltage
- Complementary type: BCX68 (NPN)

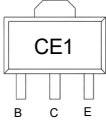
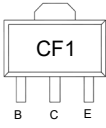
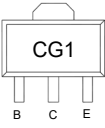
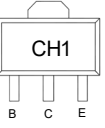


SOT-89-3L top view



Schematic diagram

Marking

BCX69	BCX69-10	BCX69-16	BCX69-25
			
85-375	85-160	100-250	160-375

Marking and pin assignment



Halogen-Free

Maximum Ratings (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-25	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	0.8	W
T_J, T_{STG}	Operating and Storage Temperature Range	-55~+150	°C

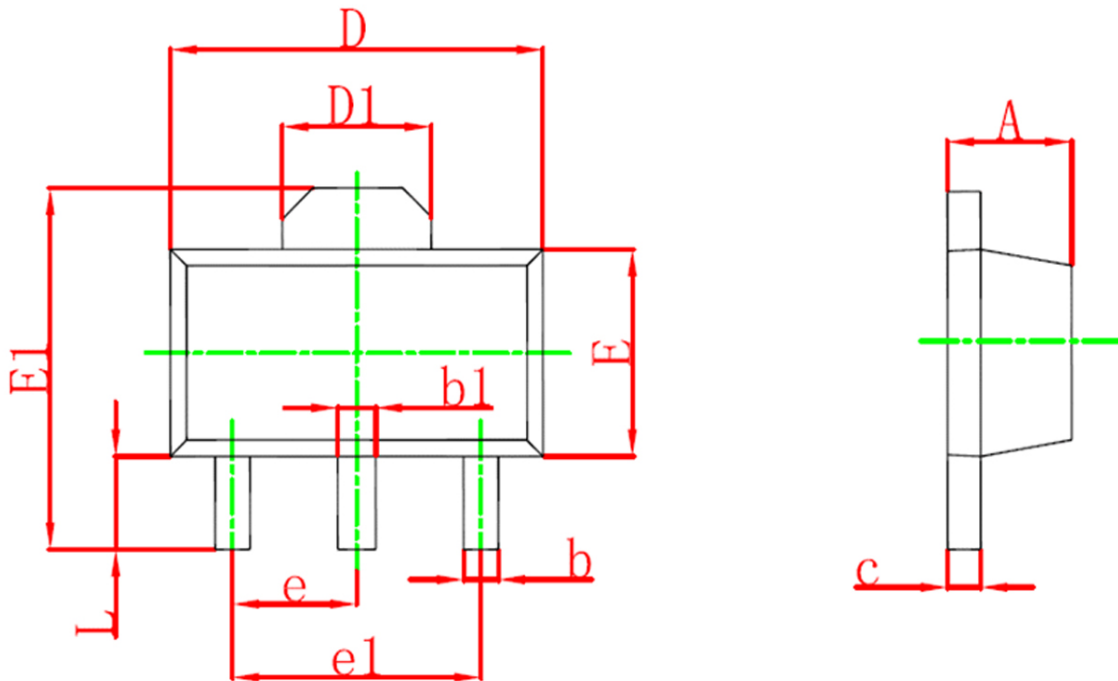
Electrical Characteristics (Ta=25°C unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C = -10\mu A, I_E = 0$	-25	--	--	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C = -30mA, I_B = 0$	-20	--	--	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = 1\mu A, I_C = 0$	-5	--	--	V
I_{CBO}	Collector cut-off current	$V_{CB} = -25V, I_E = 0$	--	--	0.1	μA
I_{EBO}	Emitter cut-off current	$V_{EB} = -5V, I_C = 0$	--	--	0.1	μA
$h_{FE1}^{(1)}$	DC current gain	$V_{CE} = -1V, I_C = 500mA$ BCX69	85	--	375	
$h_{FE2}^{(1)}$		BCX69-10	85		160	
$h_{FE3}^{(1)}$		BCX69-16	100		250	
		BCX69-25	160		375	
		$V_{CE} = -10V, I_C = -5mA$	50	--	--	
		$V_{CE} = -1V, I_C = -1A$	60	--	--	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C = -1A, I_B = 100mA$	--	--	-0.5	V
$V_{BE(on)}^{(1)}$	Base-emitter voltage	$I_C = -5mA, V_{CE} = -10V$ $I_C = -1A, V_{CE} = -1V$	--	-0.6	-1	V
f_T	Transition frequency	$V_{CE} = -5V, I_C = -100mA, f = 20MHz$	--	100	--	MHz

 1) Pulse test: $t \leq 300\mu s, D = 2\%$
Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BCX69	SOT-89-3L	CE1	1,000	10,000	40,000	7" reel
BCX69-10		CF1				
BCX69-16		CG1				
BCX69-25		CH1				

SOT-89-3L Package information



Symbol	Dimensions in Millimeters(mm)		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