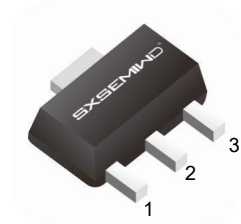


FEATURES

NPN Complement to BC868
Low Voltage
High Current

SOT-89-3L



1. BASE
2. COLLECTOR
3. EMITTER

MAXIMUM RATINGS (T_a=25°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 _{θJA}	Thermal Resistance From Junction To Ambient	250	°C/W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

MARKING:CEC;CGC;CHC

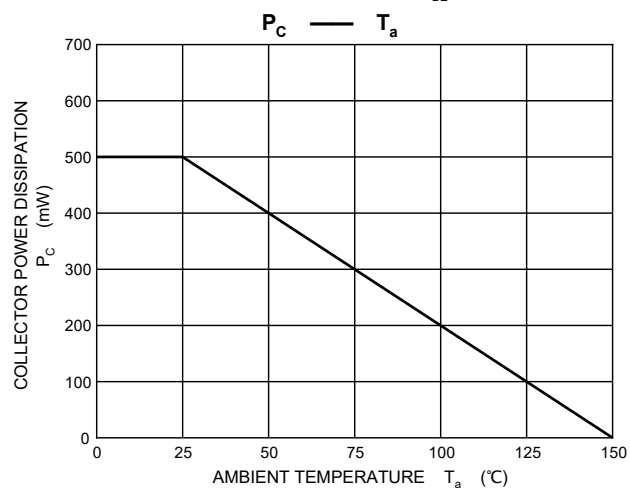
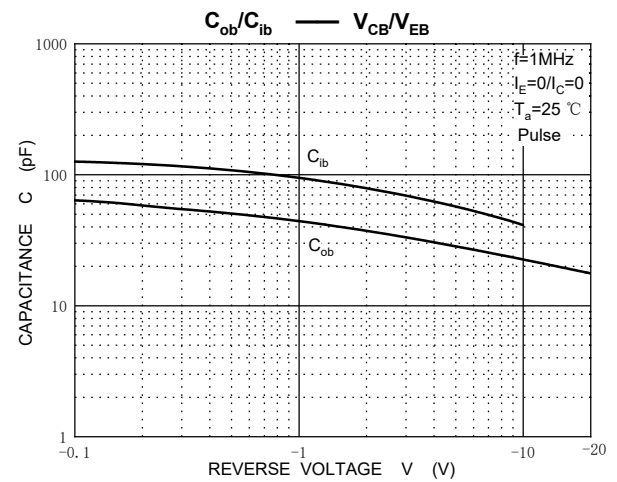
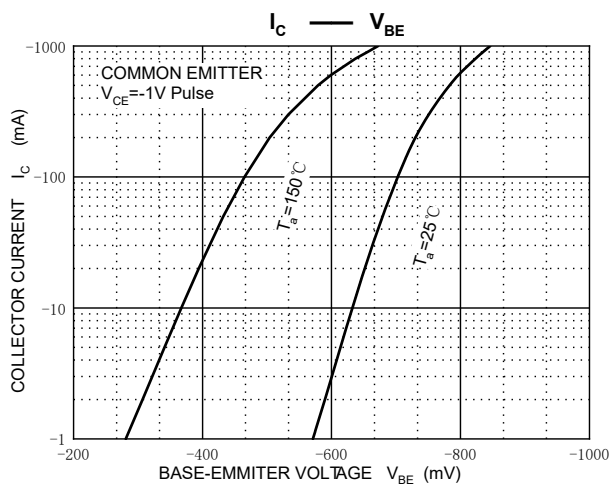
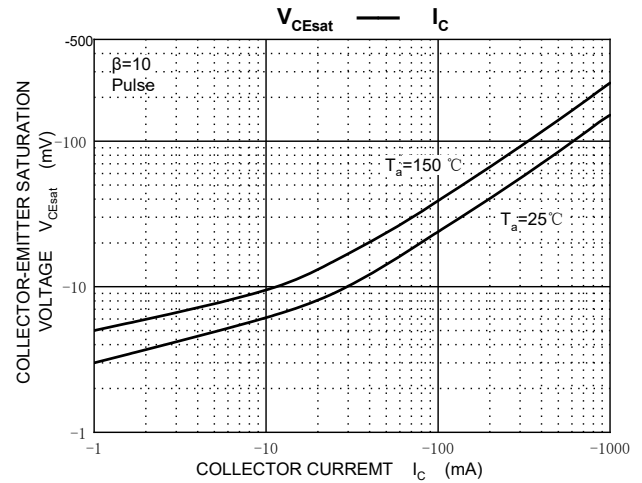
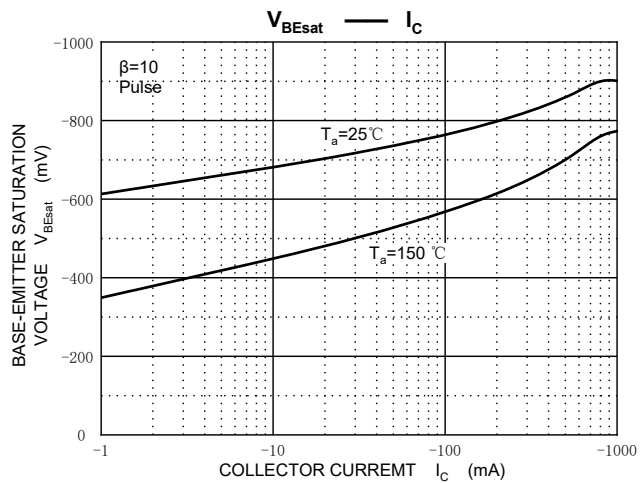
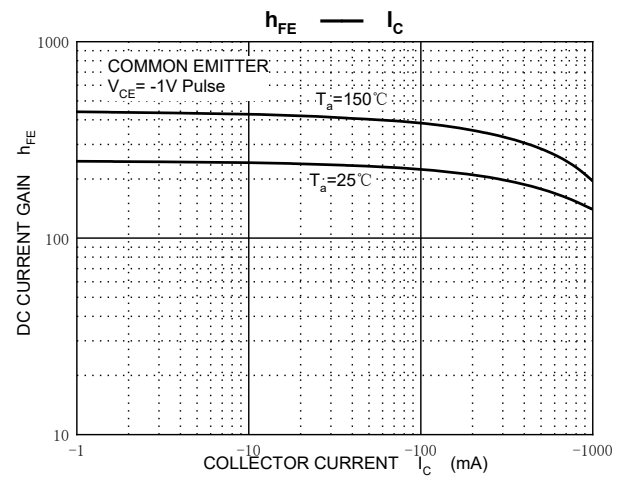
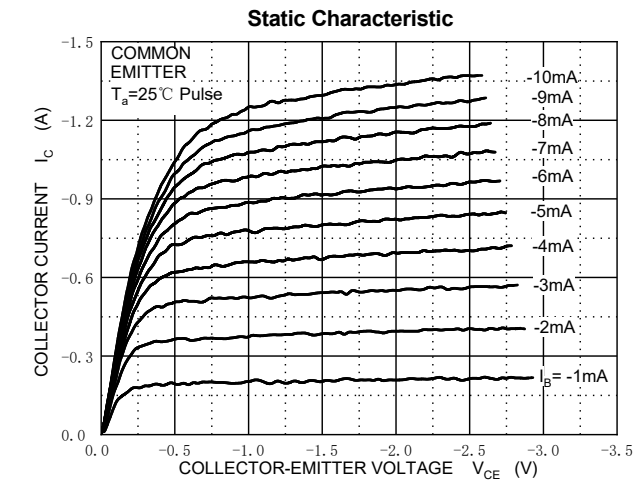
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-100μA, I _E =0	-32			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA, I _B =0	-20			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-100μA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-25V, I _E =0			-0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0			-0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =-10V, I _C =-5mA	50			
	h _{FE(2)}	V _{CE} =-1V, I _C =-0.5A	100		375	
	h _{FE(3)}	V _{CE} =-1V, I _C =-1A	60			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-1A, I _B =-0.1A			-0.5	V
Base -emitter voltage	V _{BE}	V _{CE} =-1V, I _C =-1A			-1	V
		V _{CE} =-10V, I _C =-5mA		-0.62		V
Transition frequency	f _T	V _{CE} =-5V, I _C =-10mA, f=100MHz	40			MHz

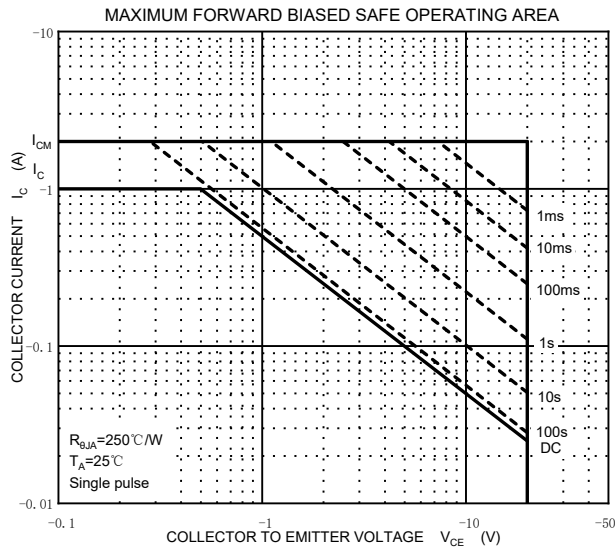
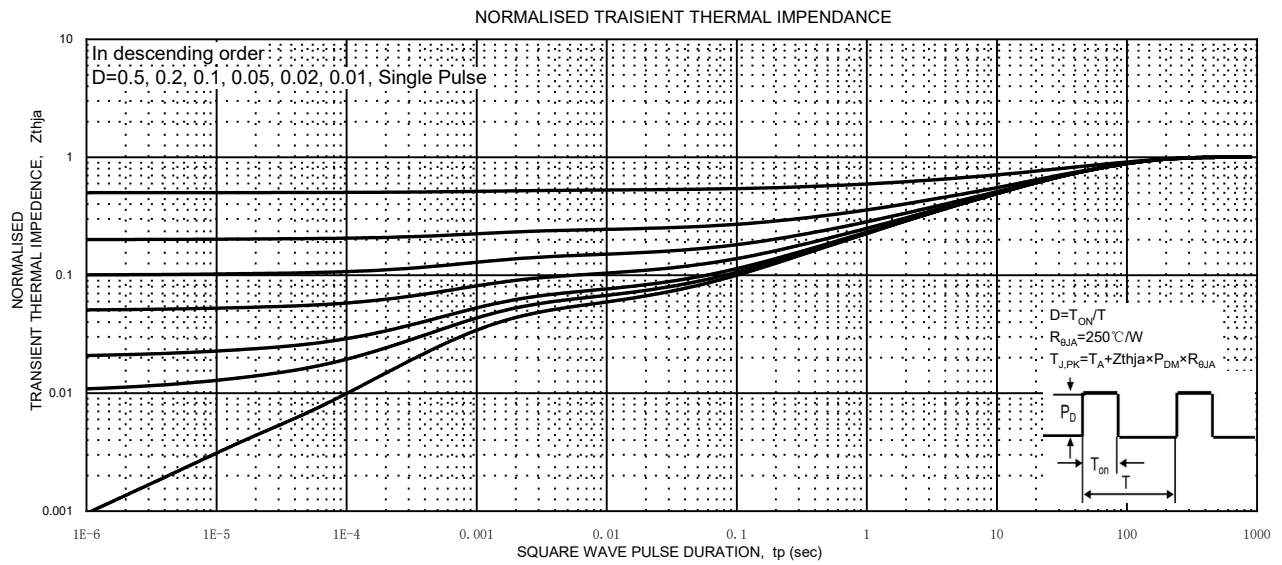
CLASSIFICATION OF h_{FE(2)}

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

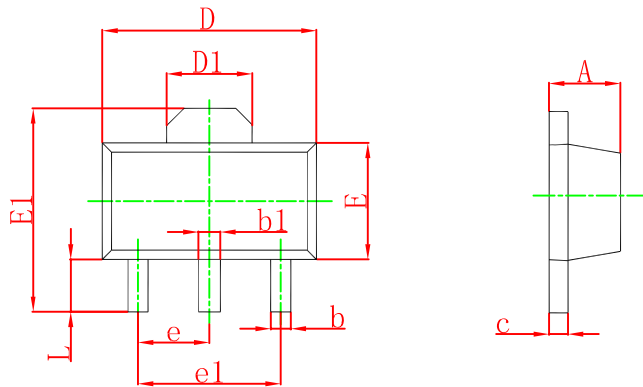
Typical Characteristics



Typical Characteristics

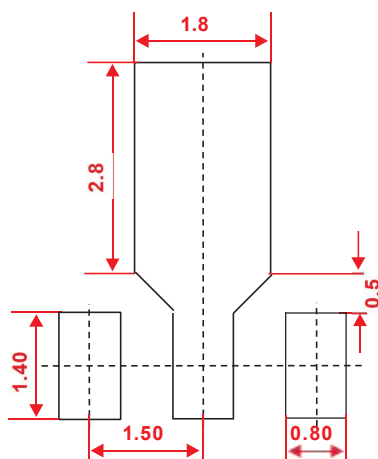


SOT-89-3L Package Outline Dimensions



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

SOT-89-3L Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.