

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Small Flat Package
- Large Current Capacity
- High DC Current Gain

APPLICATION

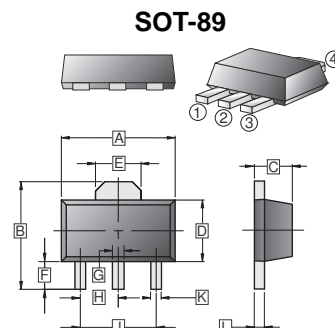
- LF Amplifiers, Various Drivers, Muting Circuit

MARKING



PACKAGE INFORMATION

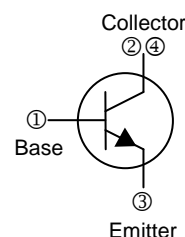
Package	MPQ	Leader Size
SOT-89	1K	7 inch



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.60	G	0.40	0.58
B	3.94	4.25	H	1.50 TYP	
C	1.40	1.60	J	3.00 TYP	
D	2.25	2.60	K	0.32	0.52
E	1.55 TYP.		L	0.35	0.44
F	0.89	1.20			

ORDER INFORMATION

Part Number	Type
BCP3669	Lead (Pb)-free
BCP3669-C	Lead (Pb)-free and Halogen-free



ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V _{CBO}	80	V
Collector-Emitter Voltage	V _{CEO}	80	V
Emitter-Base Voltage	V _{EBO}	5	V
Continuous Collector Current	I _C	2	A
Total Power Dissipation	P _D	1	W
Junction, Storage Temperature	T _J , T _{STG}	150, -55~150	°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test conditions
Collector-Base Breakdown Voltage	V _{(BR)CBO}	80	-	-	V	I _C =100μA, I _E =0
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	80	-	-	V	I _C =100μA, I _B =0
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	5	-	-	V	I _E =100μA, I _C =0
Collector Cut-off Current	I _{CBO}	-	-	1	μA	V _{CB} =80V, I _E =0
Emitter Cut-off Current	I _{EBO}	-	-	1	μA	V _{BE} =5V, I _C =0
Collector-Emitter Saturation Voltage ¹	V _{CE(sat)}	-	-	0.5	V	I _C =1A, I _B =50mA
Base-Emitter Saturation Voltage ¹	V _{BE(sat)}	-	-	1.2		
DC Current Gain ¹	h _{FE}	180	-	240		V _{CE} =2V, I _C =500mA
		40	-	-		V _{CE} =2V, I _C =1.5A
Transition Frequency	f _T	-	100	-	MHz	V _{CE} =2V, I _C =500mA
Collector Output Capacitance	C _{ob}	-	30	-	pF	V _{CB} =10V, f=1MHz
Turn on	T _{ON}	-	0.2	-	μS	V _{CC} =30V, R _L =30Ω, I _C =1A I _{B1} = -I _{B1} =50mA Duty Cycle ≤ 1%
Storage Time	T _{STG}	-	1	-		
Fall Time	T _f	-	0.2	-		

Note:

1. Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%.

CHARACTERISTIC CURVES

