

BCW66G

NPN Small Signal Transistor 200mW

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Ideally Suited for Automatic Insertion
- 150°C Junction Temperature
- Low Current, Low Voltage
- Epitaxial Planar Die Construction
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

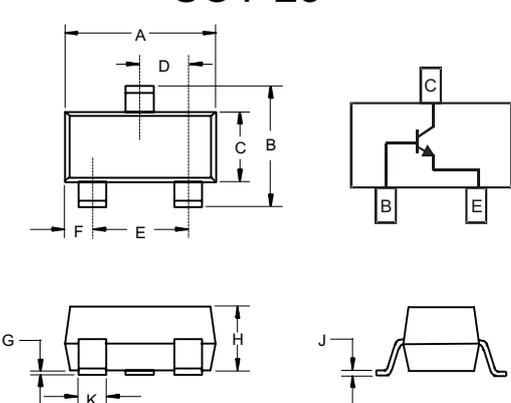
Mechanical Data

- Case: SOT-23
- Terminals: Solderable per MIL-STD-202, Method 208
- Marking: EG
- Weight: 0.008 grams (approx.)

Maximum Ratings @ 25°C Unless Otherwise Specified

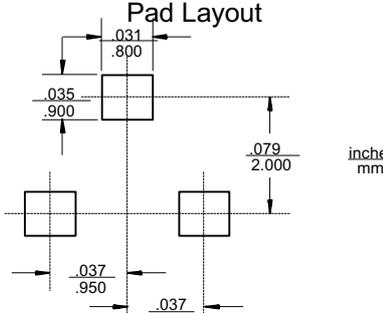
Charateristic	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	45	V
Collector-Base Voltage	V_{CBO}	75	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current(DC)	I_C	800	mA
Collector Power Dissipation	P_C	200	mW
Operating & Storage Temperature	T_j, T_{STG}	-55~150	°C

SOT-23



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout



Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Min.	TYP.	Max.	Unit
DC Current Gain ⁽¹⁾ at V _{CE} = 10V, I _C = 100μA	h _{FE}	50	–	–	–
at V _{CE} = 1V, I _C = 10mA	h _{FE}	110	–	–	–
at V _{CE} = 1V, I _C = 100mA	h _{FE}	160	–	400	–
at V _{CE} = 2V, I _C = 500mA	h _{FE}	60	–	–	–
Collector-Emitter Saturation Voltage ⁽¹⁾ at I _C = 100mA, I _B = 10mA	V _{CEsat}	–	–	0.3	V
at I _C = 500mA, I _B = 50mA	V _{CEsat}	–	–	0.7	V
Base-Emitter Saturation Voltage ⁽¹⁾ at I _C = 500mA, I _B = 50mA	V _{BEsat}	–	–	2	V
Collector-Emitter Breakdown Voltage at I _C = 10mA, I _B = 0	V _{(BR)CEO}	45	–	–	V
Collector-Base Breakdown Voltage at I _C = 10μA, I _B = 0	V _{(BR)CBO}	75	–	–	V
Emitter-Base Breakdown Voltage at I _E = 10μA, I _C = 0	V _{(BR)EBO}	5	–	–	V
Collector-Base Cut-off Current at V _{CB} = 45V, I _E = 0	I _{CBO}	–	–	20	nA
Emitter-Base Cut-off Current at V _{EB} = 4V, I _C = 0	I _{EBO}	–	–	20	nA
Gain-Bandwidth Product at V _{CE} = 10V, I _C = 20mA, f = 100MHz	f _T	–	100	–	MHz
Output capacitance at V _{CB} = 10V, I _E =0, f = 1MHz	C _{ob}	–	–	12	pF
Input capacitance at V _{EB} = 0.5V, I _E =0, f = 1MHz	C _{ib}	–	–	80	pF
Noise figure at V _{CE} = 5V, I _C =0.2mA, f = 1KHz, R _s =1KΩ, BW=200Hz	NF	–	–	10	dB

Note: (1) Pulse test: t ≤ 300μs, D = 2%



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Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 3 Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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