Micro Commercial Components
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BCW68G

PNP Small Signal Transistor 330mW

Features

- Ideally Suited for Automatic Insertion
- 150°C Junction Temperature
- Low Current, Low Frequency
- Epitaxial Planar Die Construction

Mechanical Data

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

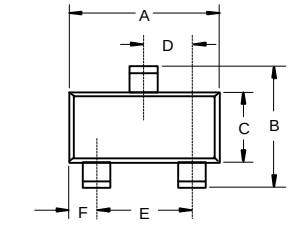
Maximum Ratings @ 25°C Unless Otherwise Specified

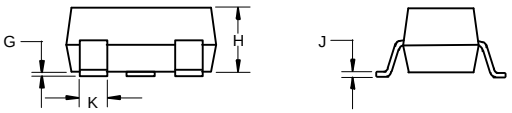
Charateristic	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	-45	V
Collector-Base Voltage	V_{CBO}	-60	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current(DC)	I_C	-800	mA
Peak Collector Current	I_{CM}	-1000	mA
Base Current(DC)	I_B	-100	mA
Peak Base Current	I_{BM}	-200	mA
Power Dissipation@T_s=79°C	P_d	330	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	285(1)	°C/W
Thermal Resistance, Junction to Soldering Point	$R_{\theta JS}$	215	°C/W
Operating & Storage Temperature	T_j, T_{STG}	-55~150	°C

Notes:

(1) Valid provided that leads are kept at ambient temperature.

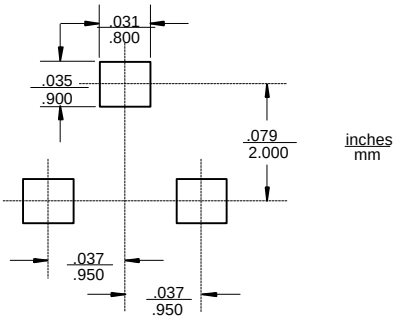
SOT-23





DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.110	.120	2.80	3.04	
B	.083	.098	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 (T_A = 25°C unless otherwise noted)

	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}	120	–	–	–
at V_{CE} = 1V, I_C = 100mA	h_{FE}	160	250	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 = 100mA, I_B = 10mA	V_{BEsat}	–	–	1.25	V
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	$V_{(BR)CBO}$	60	–	–	V
Emitter-Base Breakdown Voltage at I_E = 10μA, at I_C = 0	$V_{(BR)EBO}$	5	–	–	V
Collector-Base Cut-off Current					
at V_{CB} = 45V, I_E = 0	I_{CBO}	–	–	20	nA
at V_{CB} = 45V, I_E = 0, T_A = 150°C	I_{CBO}	–	–	20	μA
Emitter-Base Cut-off Current at V_{EB} = 4V, I_C = 0	I_{EBO}	–	–	20	nA
Gain-Bandwidth Product at V_{CE} = 5V, I_C = 50mA, f = 20MHz	f_T	–	200	–	MHz
Collector-Base Capacitance at V_{CB} = 10V, f = 1MHz	C_{CB}	–	6	–	pF
Emitter-Base Capacitance at V_{EB} = 0.5V, f = 1MHz	C_{EB}	–	60	–	pF

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