Micro Commercial Components

Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

BCW66F

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
- Moisure Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

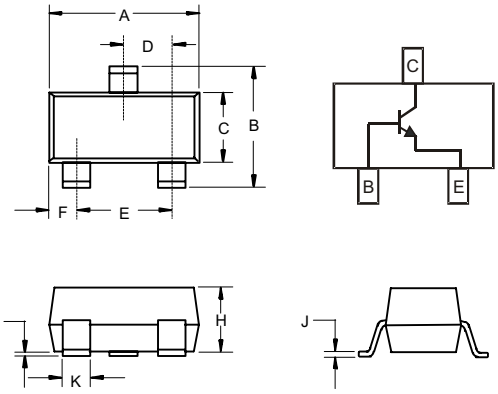
Mechanical Data

- Case: SOT-23
- Terminals: Solderable per MIL-STD-202, Method 208
- Marking: EF

Maximum Ratings @ 25°C Unless Otherwise Specified

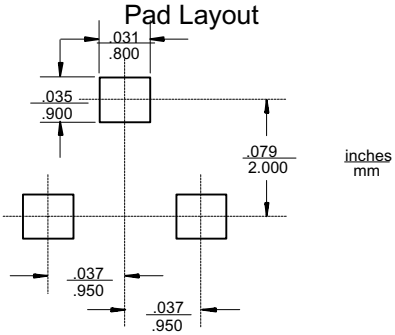
Charateristic	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	45	V
Collector-Base Voltage	V_{CBO}	75	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current(DC)	I_C	800	mA
Collector Power Dissipation	P_d	200	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	625	°C/W
Operating & Storage Temperature	T_j, T_{STG}	-55~150	°C

SOT-23



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
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 at V_{CE} = 1V, I_C = 10mA at V_{CE} = 1V, I_C = 100mA at V_{CE} = 2V, I_C = 500mA	 h_{FE} h_{FE} h_{FE} h_{FE}	 35 75 100 35	 – –	 – – 250	 – – –
Collector-Emitter Saturation Voltage at I_C = 100mA, I_B = 10mA at I_C = 500mA, I_B = 50mA	 V_{CEsat} V_{CEsat}	 – –	 – –	 0.3 0.7	 V V
Base-Emitter Saturation Voltage 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

Micro Commercial Components

Ordering Information :

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

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

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . ***Micro Commercial Components Corp .*** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold ***Micro Commercial Components Corp .*** and all the companies whose products are represented on our website, harmless against all damages.

*****LIFE SUPPORT*****

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

*****CUSTOMER AWARENESS*****

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.