THE DATASHEET OF

BCW66H-TP

www.win-source.net 0086-755-83957316

NPN Small Signal Transistor

Features

- Ideally Suited for Automatic Insertion
- Low Current, Low Voltage
- Epitaxial Planar Die Construction
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings @ 25°C Unless Otherwise Specified

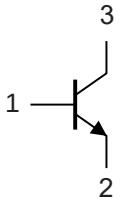
- Operating Junction Temperature Range: -55℃ to +150℃
- Storage Temperature Range: -55℃ to +150℃
- Thermal Resistance: 285℃/W Junction to Ambient(Note 2)
- Thermal Resistance: 215℃/W Junction to Soldering Point

Parameter		Symbol	Rating	Unit
Collector-Base Voltage		V_{CBO}	75	V
Collector-Emitter Voltage		V_{CEO}	45	V
Emitter-Base Voltage		V_{EBO}	5	V
Continuous Collector Current		I_C	800	mA
Peak Collector Current		I_{CM}	1000	mA
Continuous Base Current		I_B	100	mA
Peak Base Current		I_{BM}	200	mA
Power Dissipation	T_S=79°C	P_D	330	mW

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Mounted on FR-4 Printed-Circuit Board.

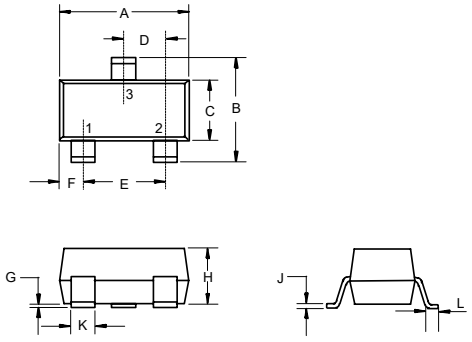
Marking: EH

Internal Structure



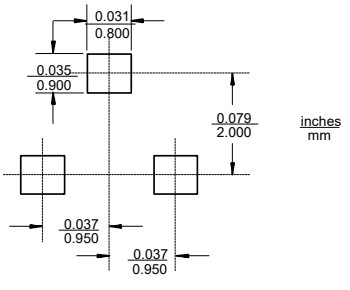
1.BASE
2.EMITTER
3.COLLECTOR

SOT-23



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
H	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.012	0.020	0.30	0.51	
L	0.007	0.020	0.20	0.50	

Suggested Solder Pad Layout



Electrical Characteristics @ T_A=25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	75			V	I_C=10μA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	45			V	I_C=10mA, I_B=0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	I_E=10μA, I_C=0
Collector-Base Cutoff Current	I_{CBO}			20	nA	V_{CB}=45V, I_E=0
				20	μA	V_{CB}=45V, I_E=0, T_A=150°C
Emitter-Base Cutoff Current	I_{EBO}			20	nA	V_{EB}=4V, I_C=0
DC Current Gain	$h_{FE(1)}$	80				V_{CE}=10V, I_C=100μA
	$h_{FE(2)}$	180				V_{CE}=1V, I_C=10mA
	$h_{FE(3)}$	250		630		V_{CE}=1V, I_C=100mA
	$h_{FE(4)}$	100				V_{CE}=2V, I_C=500mA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.3	V	I_C=100mA, I_B=10mA
				0.7	V	I_C=500mA, I_B=50mA
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1.25	V	I_C=100mA, I_B=10mA
				2.0	V	I_C=500mA, I_B=50mA
Transition Frequency	f_T		100		MHz	V_{CE}=10V,I_C=20mA,f=100MHz
Collector-Base Capacitance	C_{CB}		6		pF	V_{CB}=10V, f=1MHz
Emitter-Base Capacitance	C_{EB}		60		pF	V_{EB}=0.5V, f=1MHz

Curve Characteristics

Fig. 1 - Static Characteristics

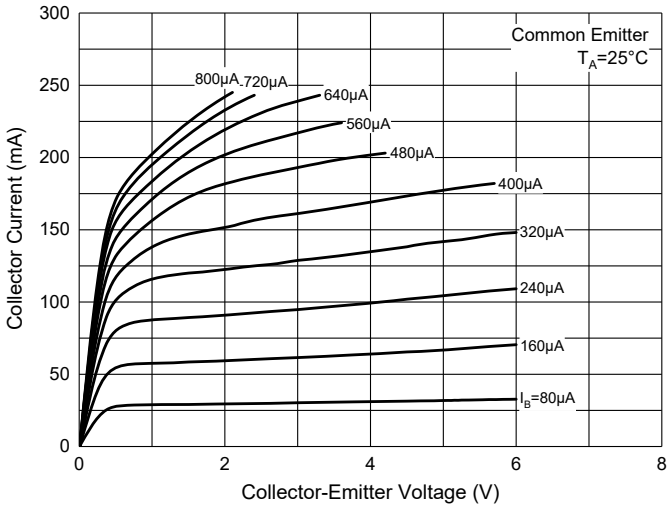


Fig. 2 - DC Current Gain Characteristics

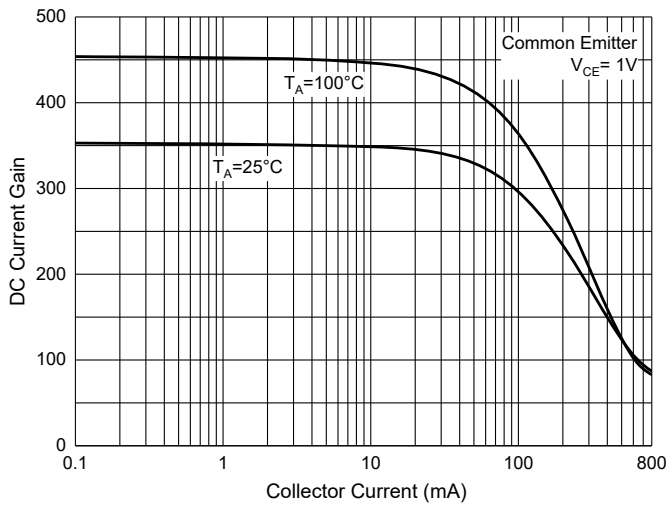


Fig. 3 - Base-Emitter Saturation Voltage Characteristics

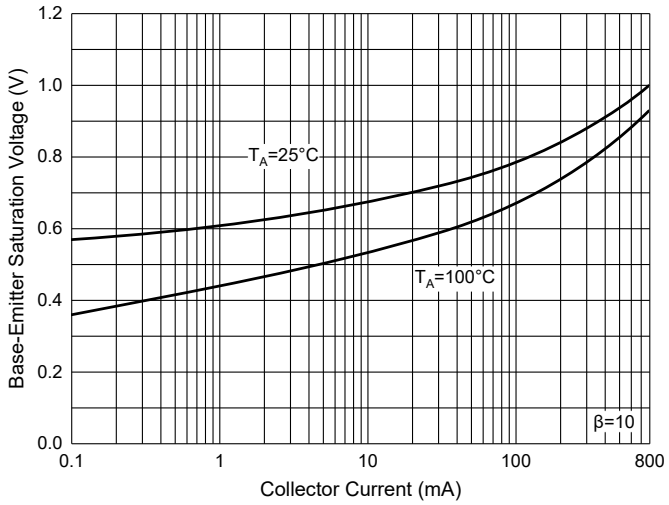


Fig. 4 - Collector-Emitter Saturation Voltage Characteristics

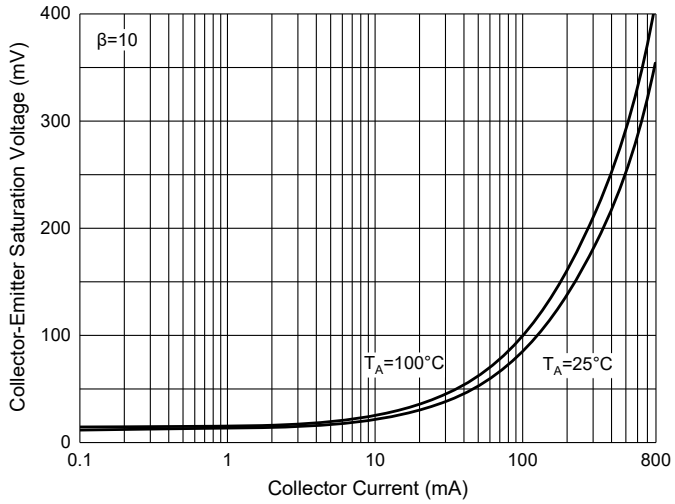
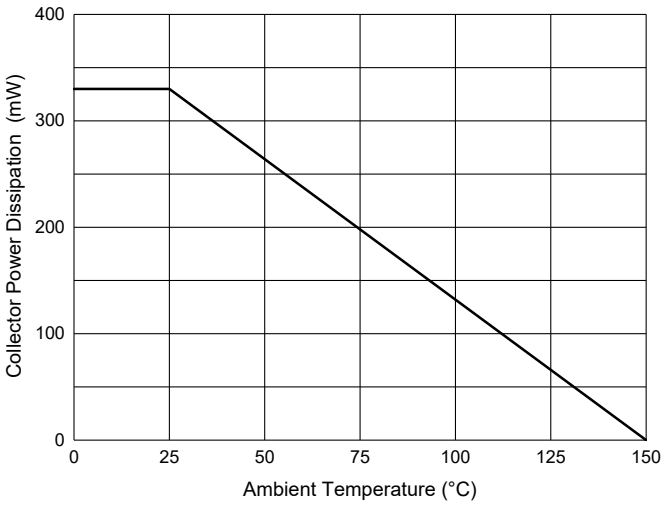


Fig. 5 - Collector Power Derating Curve



Ordering Information

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

*****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. ***Micro Commercial Components Corp***. products are sold subject to the general terms and conditions of commercial sale, as published at
https://www.mccsemi.com/Home/TermsAndConditions.

*****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.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- View BCW66H-TP on WIN SOURCE
- Micro Commercial Co Information

Optimize Your Supply Chain with WIN SOURCE Solutions

- Global Sourcing Solution
- Obsolete Management
- Cost Control Management
- Shortage Management
- Alternative Solution
- Excess Inventory Management