

BC846/BC847/BC848

BC846/BC847/BC848 SOT-23 Plastic-Encapsulate Transistors(NPN)

General description

SOT-23 Plastic-Encapsulate Transistors(NPN)

FEATURES

- Complementary to BC856/BC857/BC858
- Power Dissipation of 200mW
- Ideally suited for automatic insertion
- For switching and AF amplifier applications
- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any



DEVICE MARKING CODE:

BC846A=1A	BC846B=1B	
BC847A=1E	BC847B=1F	BC847C=1G
BC848A=1J	BC848B=1K	BC848C=1L

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol		Value	Unit
Collector-Base Voltage	V_{CBO}	BC846	80	V
		BC847	50	
		BC848	30	
Collector-Emitter Voltage	V_{CEO}	BC846	65	V
		BC847	45	
		BC848	30	
Emitter -Base Voltage	V_{EBO}		6	V
Collector Current-Continuous	I_C		100	mA
Collector Power Dissipation	P_C		200	mW
Junction Temperature	T_j		150	°C
Storage Temperature	T_{stg}		-55-+150	°C
Thermal resistance From junction to ambient	$R_{\theta JA}$		625	°C/W

BC846/BC847/BC848

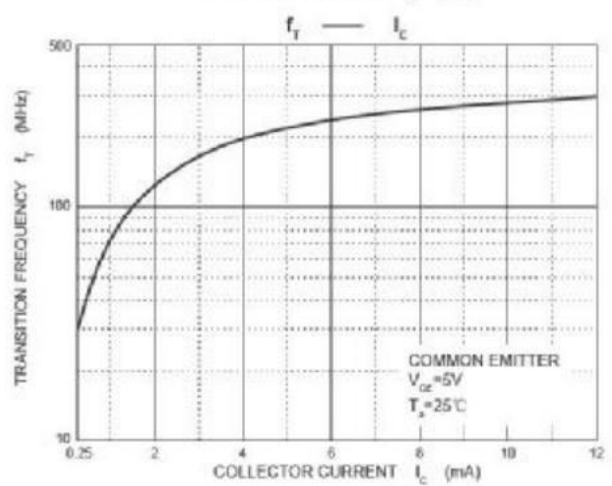
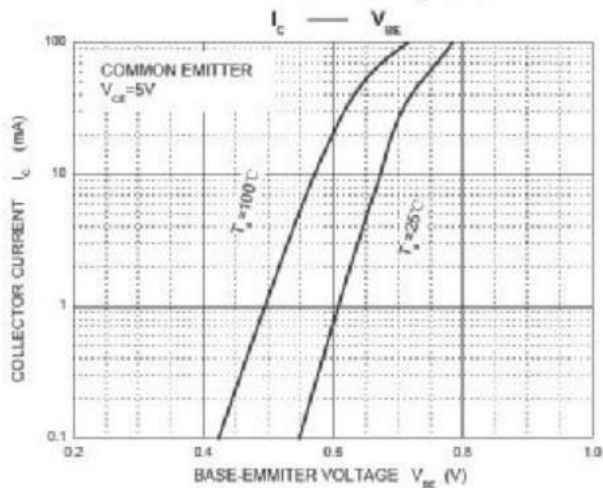
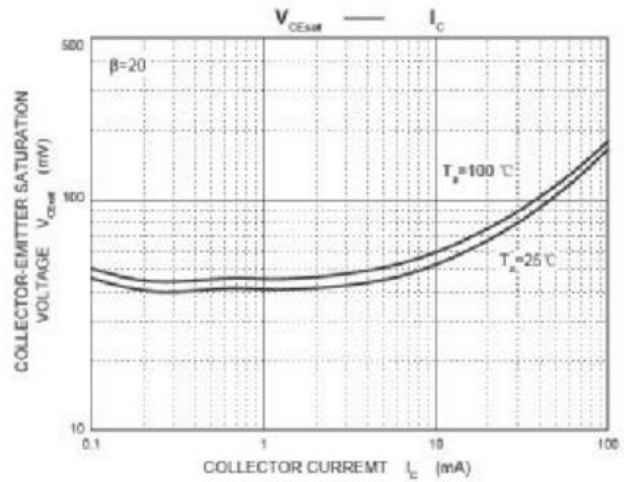
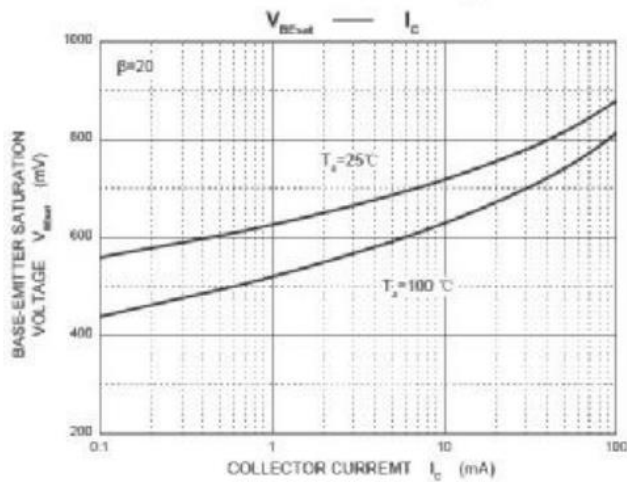
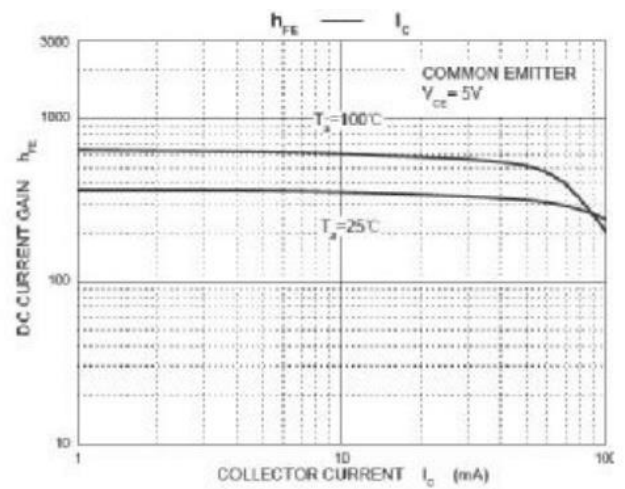
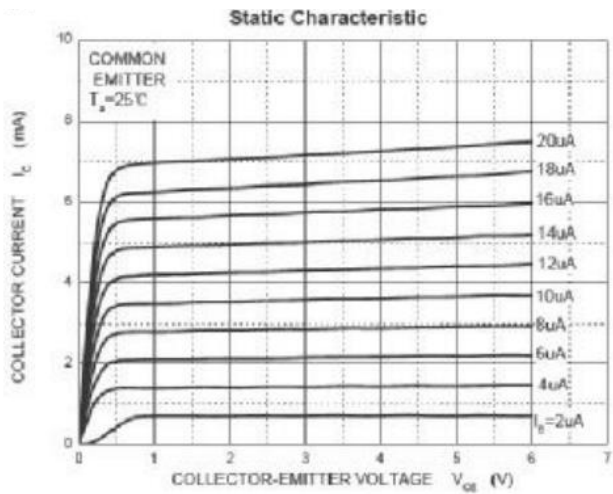
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

Parameter	Symbols	Test Condition	Limits		Unit	
			Min	Max		
Collector-base breakdown voltage	V(BR)CBO	IC=10uA, IE=0	BC846 BC847 BC848	80 50 30	V	
Collector-emitter breakdown voltage	V(BR)CEO	IC=10mA, IB=0	BC846 BC847 BC848	65 45 30	V	
Emitter-base breakdown voltage	V(BR)EBO	IE=10uA, IC=0		6	V	
Collector cut-off current	ICBO	V _{CB} =70V, IE=0 V _{CB} =50V, IE=0 V _{CB} =30V, IE=0	BC846 BC847 BC848	100	nA	
Collector cut-off current	ICEO	V _{CE} =60V, IB=0 V _{CE} =45V, IB=0 V _{CE} =30V, IB=0	BC846 BC847 BC848	100	nA	
Emitter cut-off current	IEBO	VEB=5V, IC=0		100	nA	
DC current gain	hFE	V _{CE} =5V, IC=2mA	BC846A;BC847A;BC848A BC846B;BC847B;BC848B BC847C;BC848C	110 200 420	220 450 800	
Collector-emitter saturation voltage	VCE(sat)	IC=100mA, IB=5mA			0.50	V
Base -emitter saturation voltage	VBE(sat)	IC=100mA, IB=5mA			1.10	V
Transition frequency	fT	V _{CE} =5V, IC=10mA, f=100MHz		100		MHz
Collector output capacitance	Cob	V _{CB} =10V, f=1MHz			4.5	pF



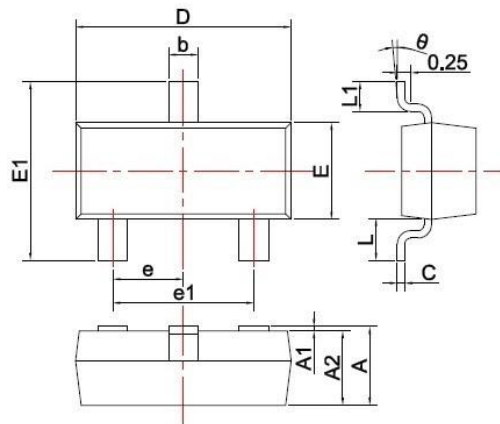
BC846/BC847/BC848

RATING AND CHARACTERISTIC CURVES



BC846/BC847/BC848

SOT-23 PACKAGE OUTLINE Plastic surface mounted package

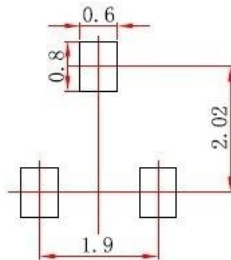


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
H	0°	8°

Unit: mm

Precautions: PCB Design

Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs



Note:

1. Controlling dimension: In millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Important Notice and Disclaimer

DOESHARE has used reasonable care in preparing the information included in this document, but DOESHARE does not warrant that such information is error free. DOESHARE assumes no liability whatsoever for any damages incurred by you resulting from errors in or omissions from the information included herein.

DOESHARE no warranty, representation or guarantee regarding the documents, circuits and products specification, DOESHARE reservation rights to make changes for any documents, products, circuits and specifications at any time without notice.

Purchasers are solely responsible for the choice, selection and use of the DOESHARE products and services described herein, and DOESHARE assumes no liability whatsoever relating to the choice, selection or use of the products and services described herein.

No license, express or implied, by implication or otherwise under any intellectual property rights of DOESHARE.

Resale of DOESHARE products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by DOESHARE for the DOESHARE product or service described herein and shall not create or extend in any manner whatsoever, any liability of DOESHARE.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bipolar Transistors - BJT category](#):

Click to view products by [Doeshare manufacturer](#):

Other Similar products are found below :

[619691C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [BC557/116](#) [BSW67A](#) [NJVMJD148T4G](#) [NTE123AP-10](#) [NTE153MCP](#) [NTE16](#)
[NTE195A](#) [NTE92](#) [C4460](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [2SC2712S-GR,LF](#) [2SC5488A-TL-H](#)
[2SD2150T100R](#) [SP000011176](#) [2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SC2412KT146S](#) [2SD1816S-TL-E](#) [CPH6501-TL-E](#) [MCH4021-TL-E](#)
[MJE340](#) [US6T6TR](#) [NJL0281DG](#) [732314D](#) [CPH3121-TL-E](#) [CPH6021-TL-H](#) [873787E](#) [IMZ2AT108](#) [UMX21NTR](#) [MCH6102-TL-E](#) [FP204-](#)
[TL-E](#) [NJL0302DG](#) [2N3583](#) [2SA2014-TD-E](#) [2SC2812-5-TB-E](#) [30A02MH-TL-E](#) [NSV40301MZ4T1G](#) [NTE13](#) [NTE26](#) [NTE282](#) [NTE323](#)