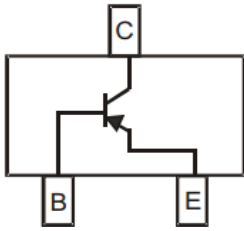


PNP General Purpose Amplifier



SOT-23

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- High Conductance
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

- General purpose switching and amplification

Mechanical Data

- **Case:** SOT-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:**

Part No.	Marking
BC856AQ	3A
BC856BQ	3B
BC857AQ	3E
BC857BQ	3F
BC857CQ	3G
BC858AQ	3J
BC858BQ	3K
BC858CQ	3L

■ Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Value	
Collector-Base Voltage	V_{CBO}	V		BC856AQ、BC856BQ	-80
				BC857AQ、BC857BQ、BC857CQ	-50
				BC858AQ、BC858BQ、BC858CQ	-30
Collector-Emitter Voltage	V_{CEO}	V		BC856AQ、BC856BQ	-65
				BC857AQ、BC857BQ、BC857CQ	-45
				BC858AQ、BC858BQ、BC858CQ	-30
Emitter-Base Voltage	V_{EBO}	V			-5
Collector Current -Continuous	I_C	A			-0.1
Total Device Dissipation	P_D	mW			300
Thermal Resistance Junction to Ambient	R_{thJA}	K/W			416
Junction Temperature	T_j	°C			150
Storage Temperature	T_{STG}	°C			-55 to +150



BC856Q THRU BC858Q

■ Electrical Characteristics (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	BC856AQ、BC856BQ	IC=-10μA,IE=0	-80
			BC857AQ、BC857BQ、 BC857CQ		-50
			BC858AQ、BC858BQ、 BC858CQ		-30
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	BC856AQ、BC856BQ	IC=-10mA,IB=0	-65
			BC857AQ、BC857BQ、 BC857CQ		-45
			BC858AQ、BC858BQ、 BC858CQ		-30
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	IE=-1μA,IC=0	-5	
Collector cut-off current	I_{CBO}	nA	VCB=-30V, IE=0		-100
Collector cut-off current	I_{CEO}	nA	BC856AQ、BC856BQ	VCE=-65V, IB=0	-100
			BC857AQ、BC857BQ、 BC857CQ	VCE=-45V, IB=0	
			BC858AQ、BC858BQ、 BC858CQ	VCE=-30V, IB=0	
Emitter cut-off current	I_{EBO}	nA	$V_{EB}=-5V, I_C=0$		-100
DC current gain	h_{FE}		BC856AQ、BC857AQ、 BC858AQ	VCE=-5.0V,IC=- 2mA	125
			BC856BQ、BC857BQ、 BC858BQ		220
			BC857CQ、BC858CQ		420
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=-100mA, I_B=-5mA$		-0.65
Base-emitter saturation voltage	$V_{BE(sat)}$	V	$I_C=-100mA, I_B=-5mA$		-1.1
Transition frequency	f_T	MHz	VCE=-5Vdc,IC=-10mA,f=30MHz	100	
Collector output capacitance	Cob	pF	VCB=-10V,f=1MHz		4.5

■ Ordering Information (Example)

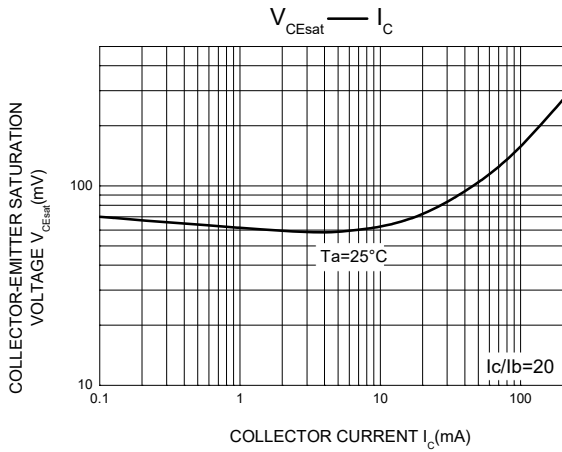
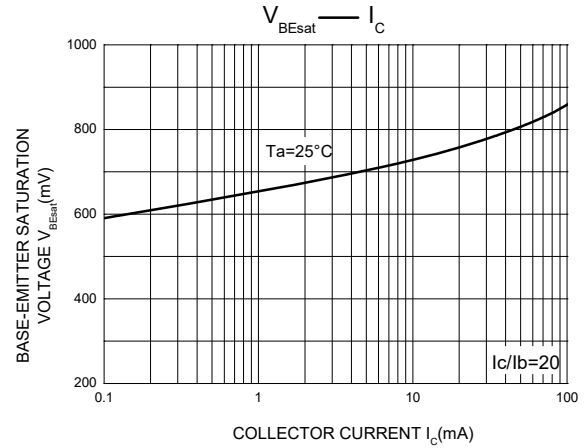
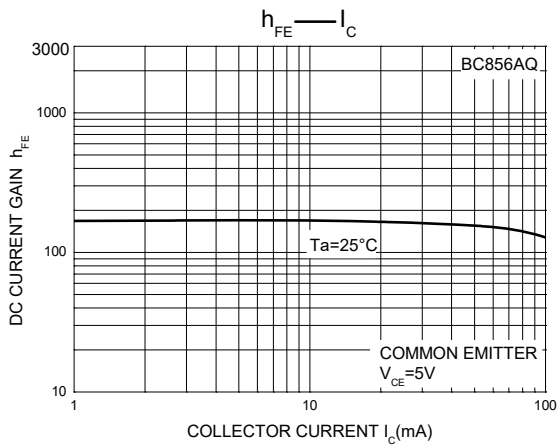
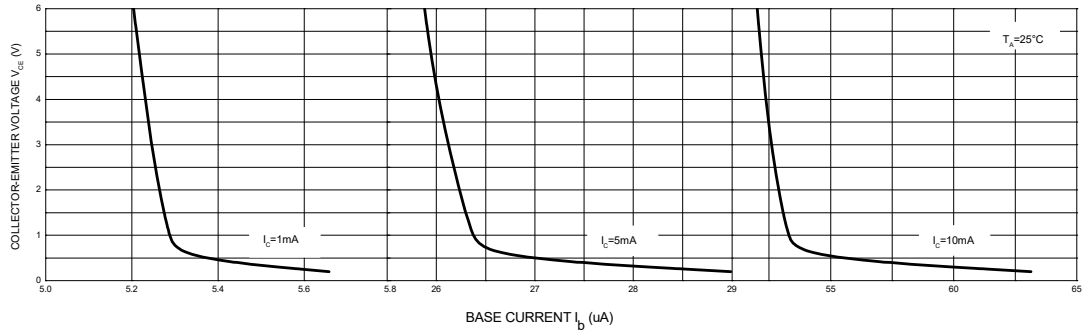
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BC856AQ、BC856BQ BC857AQ、BC857BQ、BC857CQ BC858AQ、BC858BQ、BC858CQ	F2	Approximate 0.01	3000	30000	120000	7" reel



BC856Q THRU BC858Q

■ Characteristics (Typical)

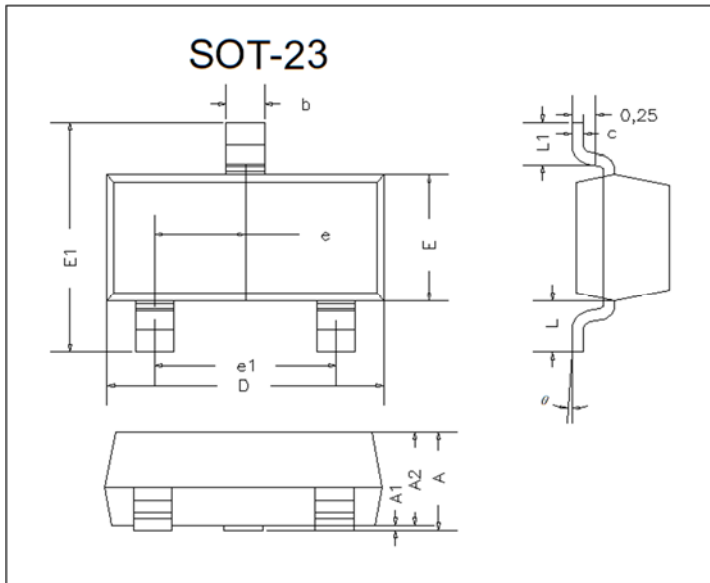
Static Characteristics





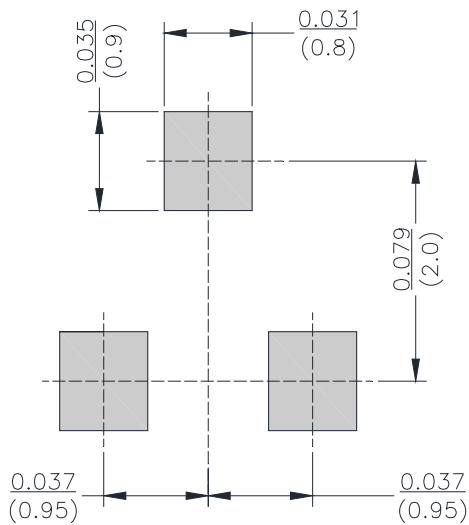
BC856Q THRU BC858Q

■SOT-23 Package Outline Dimensions



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.035	0.045	0.90	1.15	
A1	0.000	0.004	0.00	0.10	
A2	0.035	0.041	0.90	1.05	
b	0.012	0.020	0.30	0.50	
c	0.004	0.008	0.10	0.20	
D	0.110	0.118	2.80	3.00	
E	0.047	0.055	1.20	1.40	
E1	0.089	0.100	2.25	2.55	
e	0.370TYP		0.95TYP		
e1	0.071	0.079	1.80	2.00	
L	0.220REF		0.55REF		
L1	0.012	0.020	0.30	0.50	
θ	0°	8°	0°	8°	

■SOT-23 Suggested Pad Layout



Unit: $\frac{\text{inch}}{\text{mm}}$



BC856Q THRU BC858Q

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with automotive electronics, are not designed for use in medical, life-saving, lifesustaining, or military, Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.

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 [Yangjie 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](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [2SC2712S-GR,LF](#) [2SC4731T-AY](#) [FJPF5304DTU](#)
[2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SB1324-TD-E](#) [2SC2412KT146S](#) [2SC3332T](#) [2SC3902S](#) [2SC5231C8-TL-E](#) [2SD1685F](#) [CPH6501-TL-E](#)
[MCH4021-TL-E](#) [MJE340](#) [Jantx2N5416](#) [US6T6TR](#) [NJL0281DG](#) [732314D](#) [CPH3121-TL-E](#) [CPH6021-TL-H](#) [873787E](#) [IMZ2AT108](#)
[UMX21NTR](#) [MCH6102-TL-E](#) [NJL0302DG](#) [TTA1452B,S4X\(S](#) [NTE13](#) [NTE26](#) [NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#)