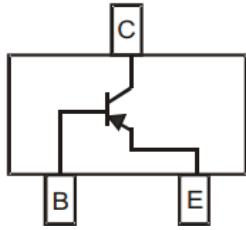




PNP General Purpose Amplifier



SOT-323

Features

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

Applications

- PNP General purpose switching and amplification

Mechanical Data

- Case: SOT-323
- Terminals: Tin plated leads, solderable per J-STD-002 and JEDEC22-B102
- Marking:

BC856AWQ	3A
BC856BWQ	3B
BC857AWQ	3E
BC857BWQ	3F
BC857CWQ	3G
BC858AWQ	3J
BC858BWQ	3K
BC858CWQ	3L

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

Item	Symbol	Unit	Value	
Collector-Base Voltage	V_{CBO}	V	BC856	-80
			BC857	-50
			BC858	-30
Collector-Emitter Voltage	V_{CEO}	V	BC856	-65
			BC857	-45
			BC858	-30
Emitter-Base Voltage	V_{EBO}	V	-5	
Collector Current -Continuous	I_C	mA	-100	
Total Device Dissipation	P_D	mW	200	
Thermal Resistance Junction to Ambient	R_{thJA}	K/W	625	
Junction Temperature	T_j	°C	-55 to +150	
Storage Temperature	T_{STG}	°C	-55 to +150	



BC856AWQ THRU BC858CWQ

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

Item	Symbol	Unit	Conditions		Min	Typ	Max
Collector-base breakdown voltage	V_{CBO}	V	BC856	$I_C = -10\mu A, I_E = 0$	-80		
			BC857		-50		
			BC858		-30		
Collector-emitter breakdown voltage	V_{CEO}	V	BC856	$I_C = -10mA, I_B = 0$	-65		
			BC857		-45		
			BC858		-30		
Emitter-base breakdown voltage	V_{EBO}	V	$I_E = -1\mu A, I_C = 0$		-5		
Collector-base cut-off current	I_{CBO}	μA	$V_{CB} = -30V, I_E = 0$				-0.1
Emitter-base cut-off current	I_{EBO}	μA	$V_{EB} = -5V, I_C = 0$				-0.1
DC current gain	h_{FE}		BC856AWQ、 BC857AWQ、 BC858AWQ	$V_{CE} = -5V, I_C = -2mA$	125		250
			BC856BWQ、 BC857BWQ、 BC858BWQ		220		475
			BC857CWQ、 BC858CWQ		420		800
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

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

Item	Symbol	Unit	Conditions	Min	Typ	Max
Transition frequency	f_T	MHz	$V_{CE} = -5V, I_C = -10mA, f = 100MHz$	100		

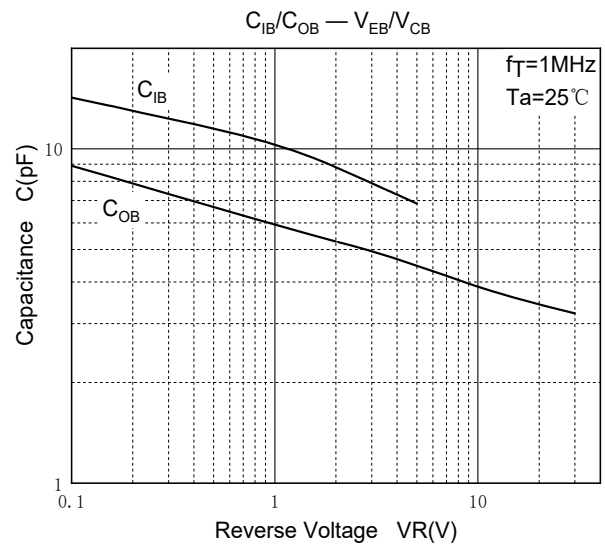
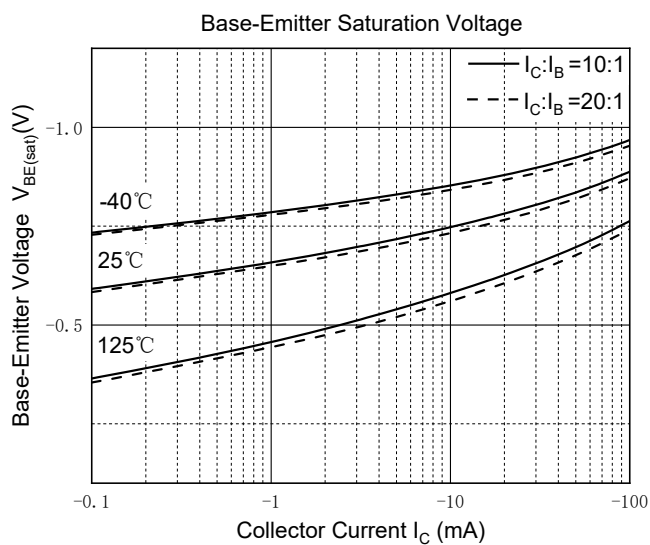
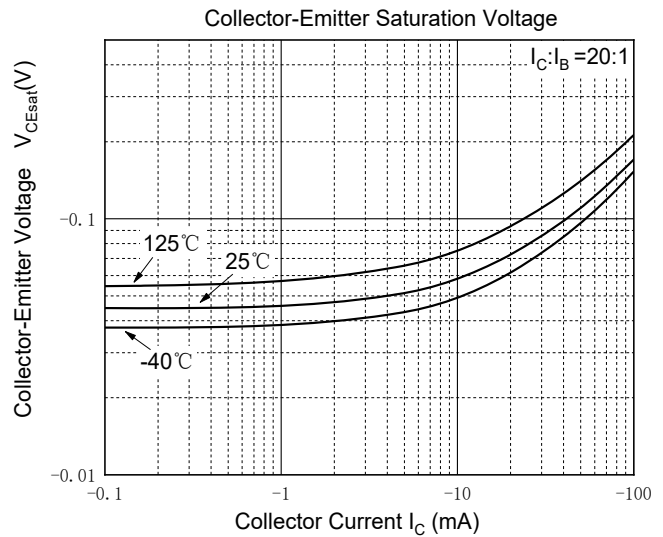
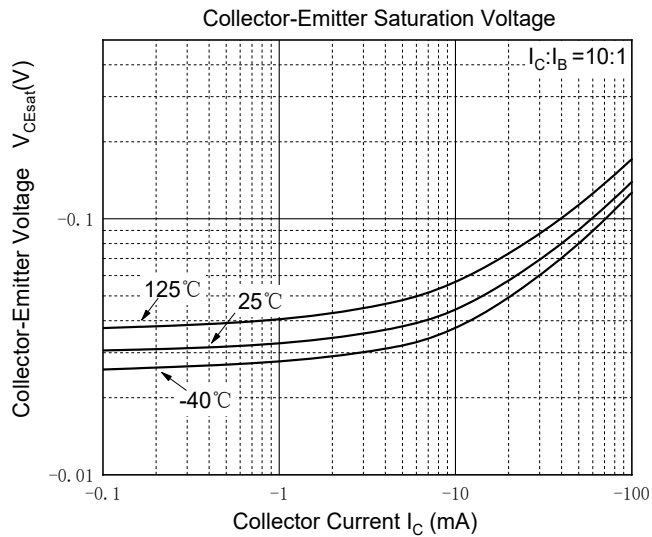
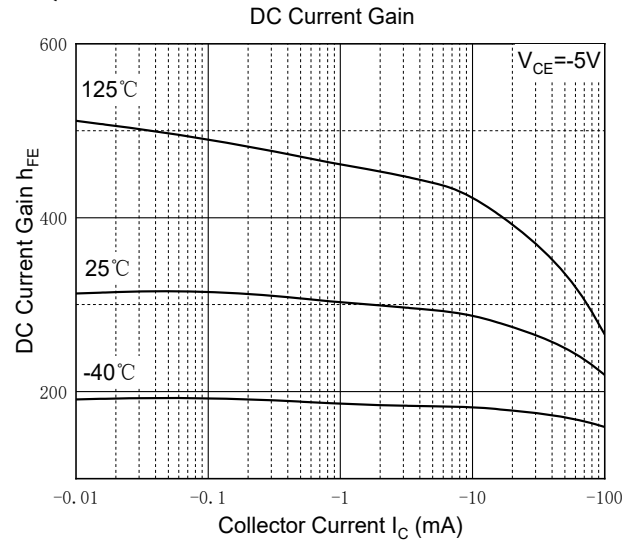
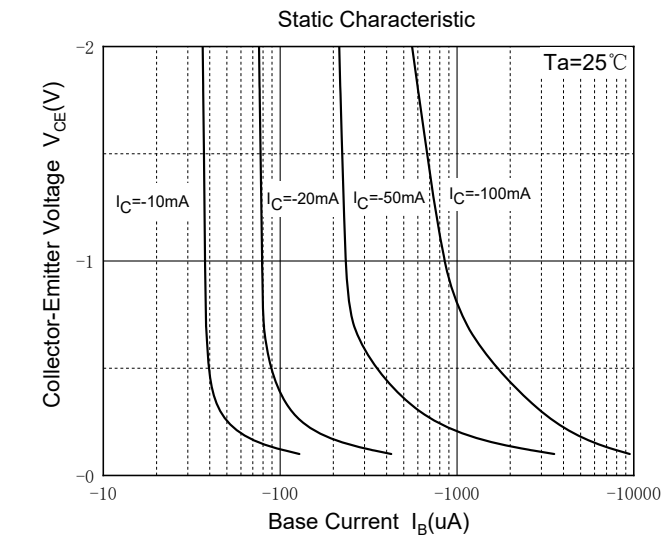
■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BC856AWQ THRU BC858CWQ	F2	Approximate 0.005	3000	30000	120000	7" reel



■ Characteristics(Typical)

BC857BWQ

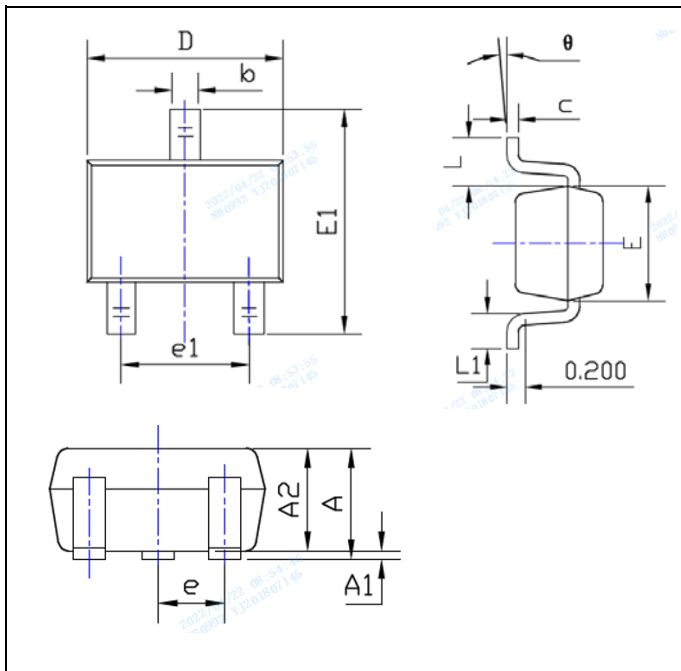




BC856AWQ THRU BC858CWQ

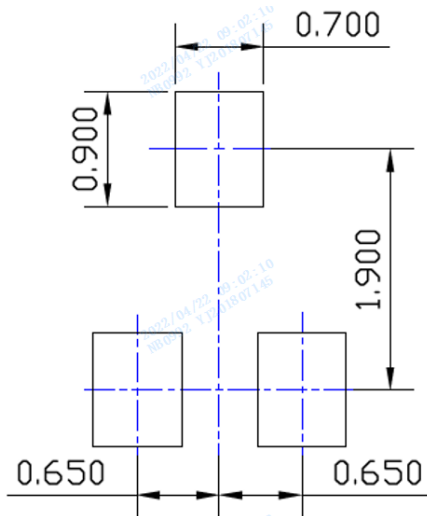
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■ SOT-323 Package Outline Dimensions



DIMENSIONS				
SYMBOL	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.043	0.900	1.100
A1	0.000	0.004	0.000	0.100
A2	0.035	0.039	0.900	1.000
b	0.006	0.016	0.150	0.400
c	0.004	0.010	0.100	0.250
D	0.071	0.087	1.800	2.200
E	0.045	0.053	1.150	1.350
E1	0.085	0.096	2.150	2.450
e	0.026TYP		0.650TYP	
e1	0.047	0.055	1.200	1.400
L	0.021REF		0.525REF	
L1	0.010	0.018	0.260	0.460
θ	0°	8°	0°	8°

■ SOT-323 Suggested Pad Layout



Unit: mm

NOTE:
1. PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
2. THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.



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