



BC856BW-AU ~ BC857CW-AU

PNP GENERAL PURPOSE TRANSISTORS

VOLTAGE 45/65 Volts **POWER** 250 mWatts

SOT-323

Unit : inch(mm)

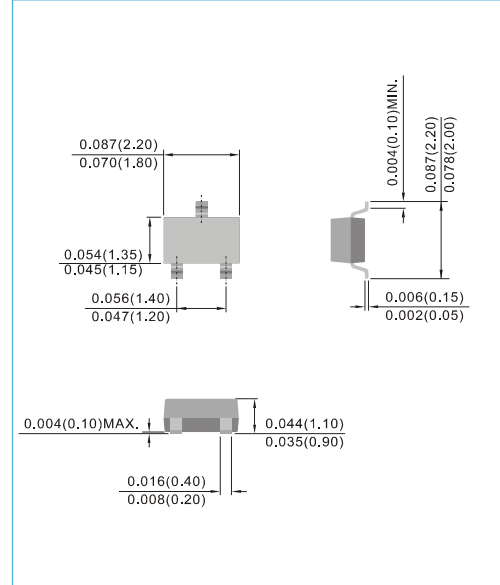
FEATURES

- General purpose amplifier applications
- PNP epitaxial silicon, planar design
- Collector current $I_C = 100\text{mA}$
- Complimentary (NPN) Devices : BC856BW-AU/BC857AW-AU Series
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in comply with EU RoHS 2011/65/EU directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOT-323, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounce, 0.005 gram

Device Marking:	Device Marking:
	BC857AW-AU=57A
BC856BW-AU=56B	BC857BW-AU=57B
	BC857CW-AU=57C



ABSOLUTE MAXIMUM RATINGS

PARAMETER	Symbol	Value	Units
Collector - Emitter Voltage BC856BW-AU BC857AW-AU/BW-AU/CW-AU	V_{CEO}	-65 -45	V
Collector - Base Voltage BC856BW-AU BC857AW-AU/BW-AU/CW-AU	V_{CBO}	-80 -50	V
Emitter - Base Voltage BC856BW-AU BC857AW-AU/BW-AU/CW-AU	V_{EBO}	6 6	V
Collector Current - Continuous	I_C	-100	mA
Max. Power Dissipation (Note 1)	P_{TOT}	250	mW
Storage Temperature Range	T_{STG}	-55 to 150	°C
Junction Temperature Range	T_J	-55 to 150	°C

Note : 1. Transistor mounted on FR-5 board 1 x 0.75 x 0.062 in.

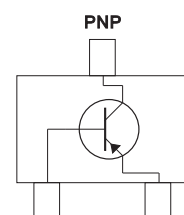


Fig.35



BC856BW-AU ~ BC857CW-AU

THERMAL CHARACTERISTICS

PARAMETER	Symbol	Value	Units
Thermal Resistance (Note 2) (Note 3)	$R_{\theta JA}$ $R_{\theta JC}$	500 200	°C/W

Note : 2.Mounted on an FR4 PCB, single-sided copper, mini pad.

3.Mounted on an FR4 PCB, single-sided copper, with 100cm² copper pad area

ELECTRICAL CHARACTERISTICS (T_J=25°C, unless otherwise noted)

PARAMETER	Symbol	MIN.	TYP.	MAX.	Units
Collector - Emitter Breakdown Voltage (I _C =-10mA, I _B =0)	BC856BW-AU BC857AW-AU/BW-AU/CW-AU $V_{(BR)CEO}$	-65 -45	-	-	V
Collector - Base Breakdown Voltage (I _C =-10μA, I _E =0)	BC856BW-AU BC857AW-AU/BW-AU/CW-AU $V_{(BR)CBO}$	-80 -50	-	-	V
Emitter-Base Breakdown Voltage (I _E =-1μA, I _C =0)	$V_{(BR)EBO}$	-5	-	-	V
Emitter-Base Cutoff Current (V _{EB} =-5V)	I _{EBO}	-	-	-100	nA
Collector-Base Cutoff Current (V _{CB} =-30V, I _E =0)	T _J =25°C T _J =150°C I _{CBO}	-	-	-15 -4	nA μA
DC Current Gain (I _C =-10μA, V _{CE} =-5V)	BC857AW-AU BC856BW-AU/BC857BW-AU BC857CW-AU h _{FE}	-	90 150 270	-	-
DC Current Gain (I _C =-2.0mA, V _{CE} =-5V)	BC857AW-AU BC856BW-AU/BC857BW-AU BC857CW-AU h _{FE}	110 200 420	180 290 520	220 450 800	-
Collector - Emitter Saturation Voltage (I _C =-10mA, I _B =-0.5mA) (I _C =-100mA, I _B =-5.0mA)	V _{CE(SAT)}	-	-	-0.3 -0.65	V
Base - Emitter Saturation Voltage (I _C =-10mA, I _B =-0.5mA) (I _C =-100mA, I _B =-5.0mA)	V _{BE(SAT)}	-	-0.7 -0.9	-	V
Base - Emitter Voltage (I _C =-2mA, V _{CE} =-5.0V) (I _C =-10mA, V _{CE} =-5.0V)	V _{BE(ON)}	-0.60 -	-	-0.75 -0.82	V
Collector - Base Capacitance (V _{CB} =-10V, I _E =0, f=1MHz)	C _{CB}	-	-	4.5	pF
Current-Gain-Bandwidth Product (I _C =-10mA, V _{CE} =-5.0V, f=100MHz)	F.	-	200	-	MHz



BC856BW-AU ~ BC857CW-AU

ELECTRICAL CHARACTERISTICS CURVES

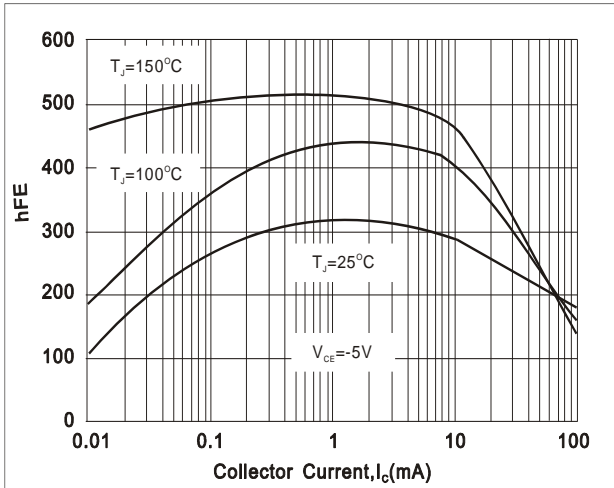


Fig.1- TYPICAL h_{FE} vs. Collector Current

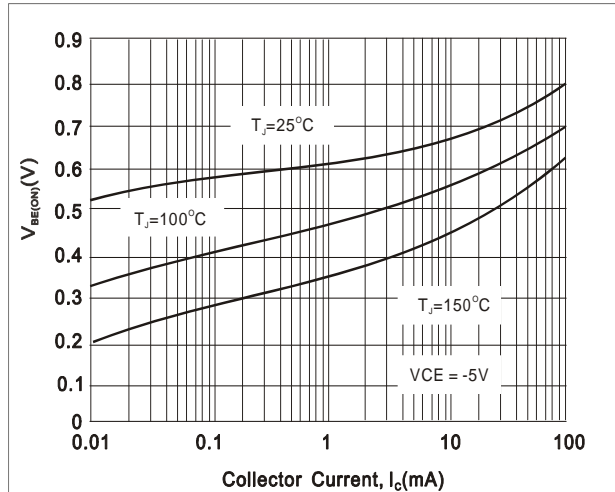


Fig.2- TYPICAL $V_{BE(ON)}$ vs. Collector Current

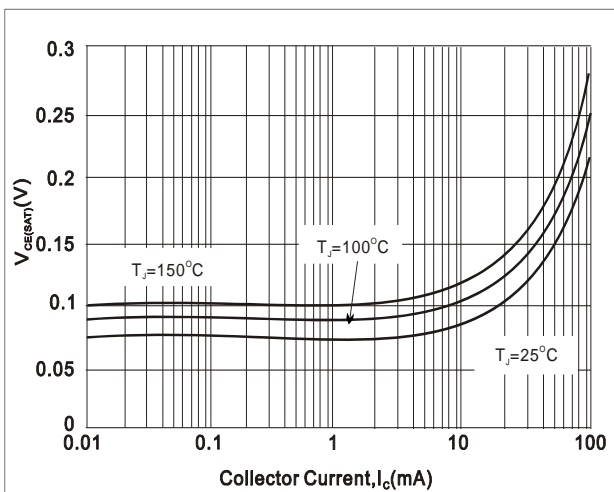


Fig.3- TYPICAL $V_{CE(SAT)}$ vs. Collector Current

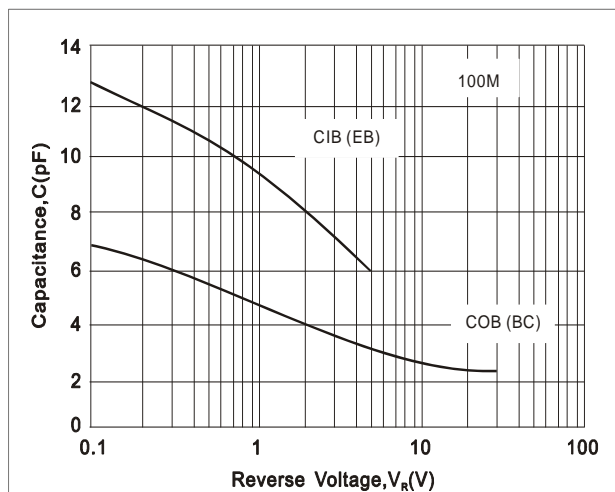
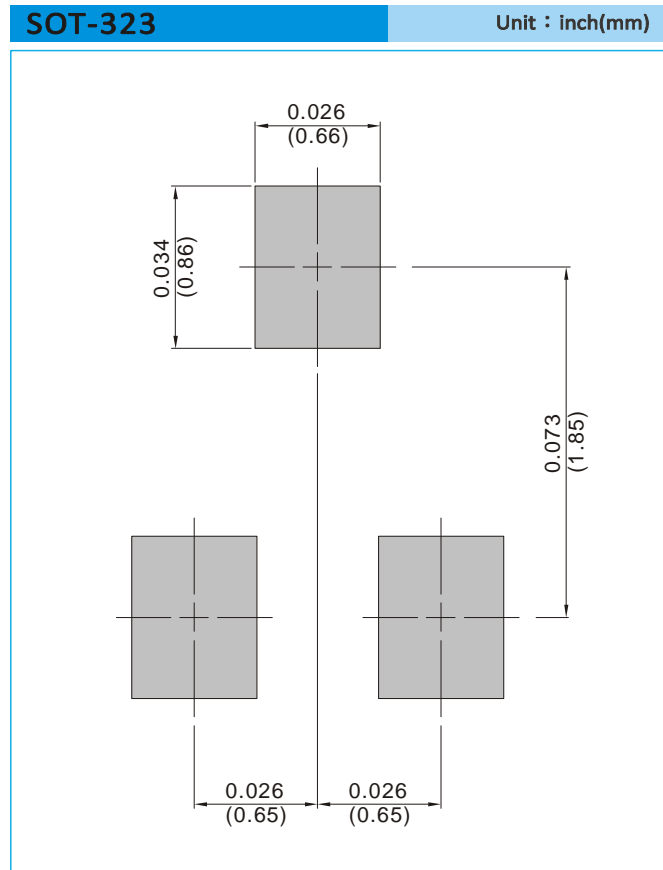


Fig.4- TYPICAL CAPACITANCES vs. REVERSE VOLTAGE



BC856BW-AU ~ BC857CW-AU

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 12K per 13" plastic Reel
T/R - 3K per 7" plastic Reel



BC856BW-AU ~ BC857CW-AU

Part No_packing code_Version

BC856BW-AU_R1_000A1

BC856BW-AU_R2_000A1

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



BC856BW-AU ~ BC857CW-AU

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

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 [Panjit manufacturer](#):

Other Similar products are found below :

[004419CB](#) [013607A](#) [039866A](#) [062330D](#) [067289D](#) [068071B](#) [069120X](#) [098342B](#) [098733E](#) [12A02CH-TL-E](#) [12A02MH-TL-E](#) [15C01C-TB-E](#)
[15C01M-TL-E](#) [15C01SS-TL-E](#) [15C02CH-TL-E](#) [15C02MH-TL-E](#) [15GN01MA-TL-E](#) [15GN03CA-TB-E](#) [15GN03FA-TL-H](#) [15GN03MA-TL-](#)
[E](#) [2DA1201Y-7](#) [2DA1201YQTC](#) [2DA1213O-13](#) [2DA1213YQ-13](#) [2DA1774Q-7-F](#) [2DA1774QLP-7](#) [2DA1774QLP-7B](#) [2DA1774R-7-F](#)
[2DA1797-13](#) [2DA1971-7](#) [2DA2018-7](#) [2DB1132Q-13](#) [2DB1132R-13](#) [2DB1184Q-13](#) [2DB1188Q-13](#) [2DB1188R-13](#) [2DB1386Q-13](#)
[2DB1386R-13](#) [2DB1424R-13](#) [2DB1689-7](#) [2DB1694-7](#) [2DB1697-13](#) [2DB1713-13](#) [2DB1714-13](#) [2DC2412R-7](#) [2DC4617Q-7-F](#)
[2DC4617QLP-7B](#) [2DC4617S-7-F](#) [2DC4672-13](#) [2DD1664P-13](#)