PANJIT SEMI CONDUCTOR

BC847BFN3

NPN GENERAL PURPOSE TRANSISTORS

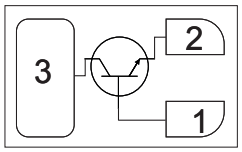
VOLTAGE	45 Volt	POWER	250 mWatt

FEATURES

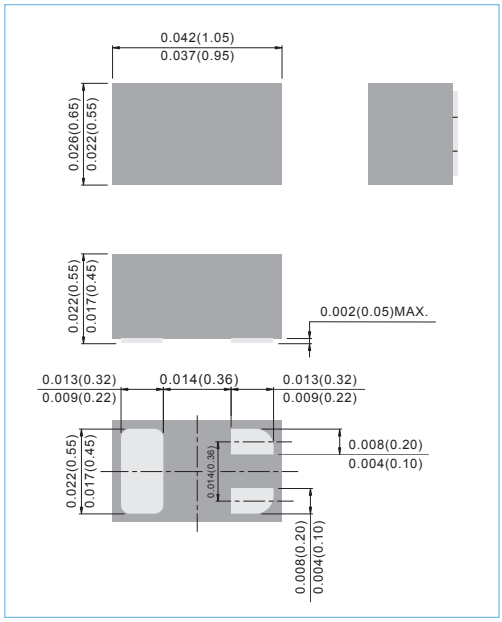
- General purpose amplifier applications
- NPN epitaxial silicon, planar design
- Collector current IC = 100mA
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: DFN 3L, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Marking: AE



DFN 3L Unit : inch(mm)



ABSOLUTE RATINGS

Parameter	Symbol	Value	Units
Collector - Emitter Voltage	V_{CEO}	45	V
Collector - Base Voltage	V_{CBO}	50	V
Emitter - Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	100	mA

THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Max Power Dissipation (Note 1)	P_{TOT}	250	mW
Thermal Resistance , Junction to Ambient	$R\theta_{JA}$	500	$^{O}C/W$
Junction Temperature	T_J	-55 to +150	^{O}C
Storage Temperature	T_{STG}	-55 to +150	^{O}C

Note 1: Transistor mounted on FR-4 board 70 x 60 x 1mm.

PAN JIT RESERVES THE RIGHT TO IMPROVE PRODUCT DESIGN,FUNCTIONS AND RELIABILITY WITHOUT NOTICE

BC847BFN3

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

PARAMETER	Symbol	Test Condition	MIN.	TYP.	MAX.	Unit
OFF CHARACTERISTICS						
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=10mA	45	-	-	V
Collector - Emitter Breakdown Voltage	$V_{(BR)CES}$	I_C=10uA, V_{EB}=0	50	-	-	V
Collector - Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=10uA	50	-	-	V
Emitter - Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=10uA	6.0	-	-	V
Collector Cutoff Current	I_{CBO}	V_{CB}=30V, V_{CB}=30V, T_A=150°C	-	-	15 5.0	nA uA
ON CHARACTERISTICS						
DC Current Gain	h_{FE}	I_C=2.0mA, V_{CE}=5V	200	-	450	-
Collector - Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=10mA, I_B=0.5mA I_C=100mA, I_B=5.0mA	-	- -	0.25 0.6	V
Base - Emitter Saturation Voltage	$V_{BE(SAT)}$	I_C=10mA, I_B=0.5mA I_C=100mA, I_B=5.0mA	0.6 0.8	- -	0.9 1.0	V
Base - Emitter Voltage	$V_{BE(ON)}$	I_C=2mA, V_{CE}=5.0V I_C=10mA, V_{CE}=5.0V	580 -	660 -	700 770	mV
SMALL-SIGNAL CHARACTERISTICS						
Current-Gain-Bandwidth Product	f_T	I_C=10mA,V_{CE}=5.0Vdc,f=100MH_Z	100	-	-	MH_Z
Output Capacitance	C_{obo}	V_{CB}=10V,f=1.0MH_Z	-	-	4.5	pF
Noise Figure	NF	I_C=0.2mA,V_{CE}=5.0Vdc, R_S=2.0kΩ,f=1.0kH_Z , BW=200H_Z	-	-	10	dB

BC847BFN3

ELECTRICAL CHARACTERISTICS CURVE

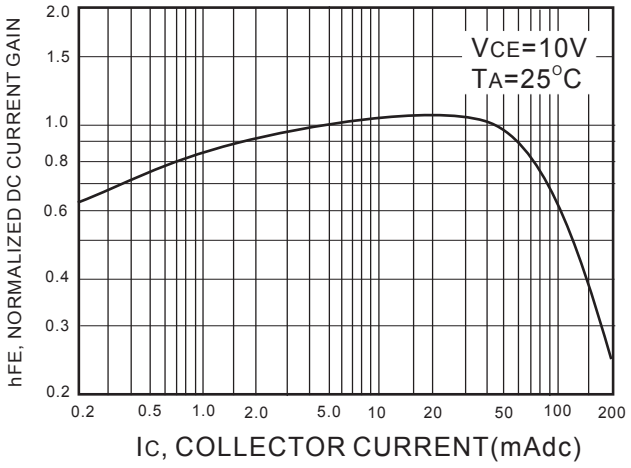


Figure 1. Normalized DC Current Gain

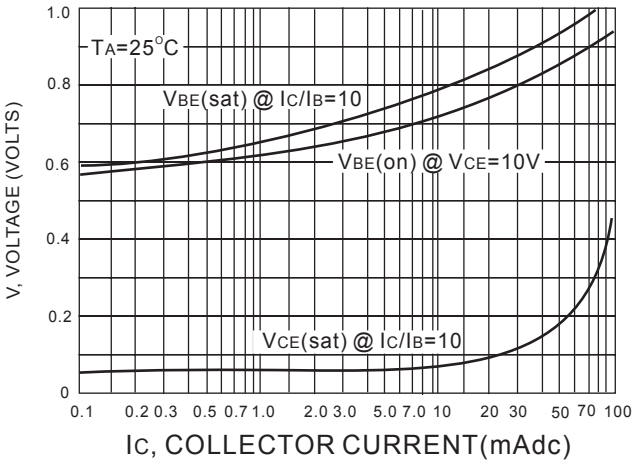


Figure 2. "Saturation" and " On " Voltages

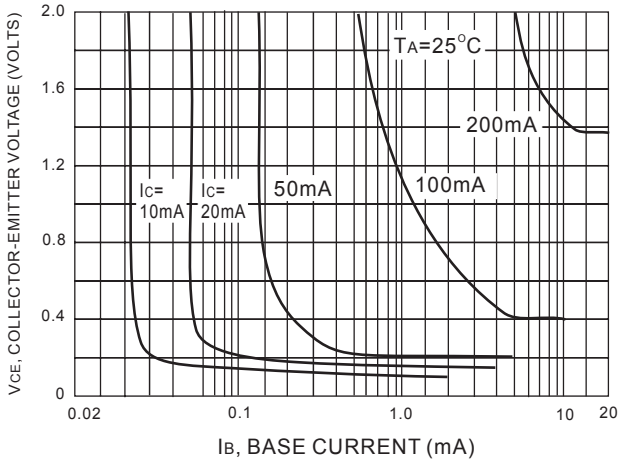


Figure 3. Collector Saturation Region

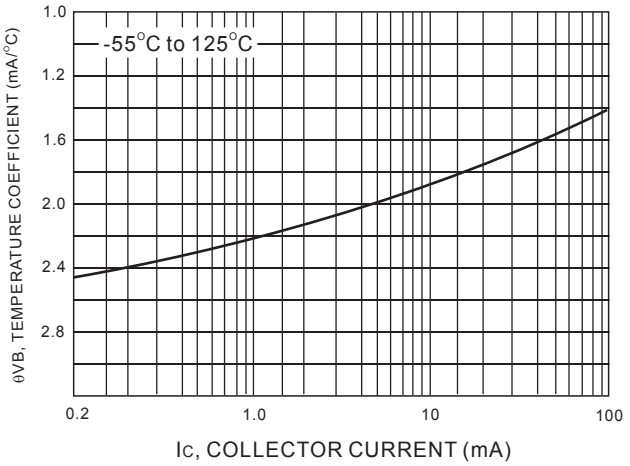


Figure 4. Base-Emitter Temperature Coefficient

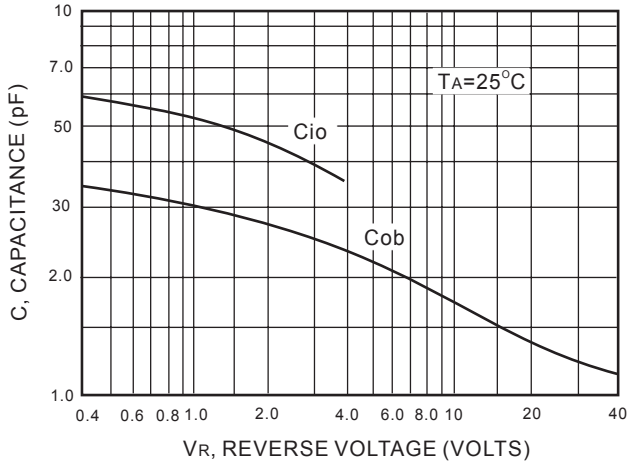


Figure 5. Capacitance

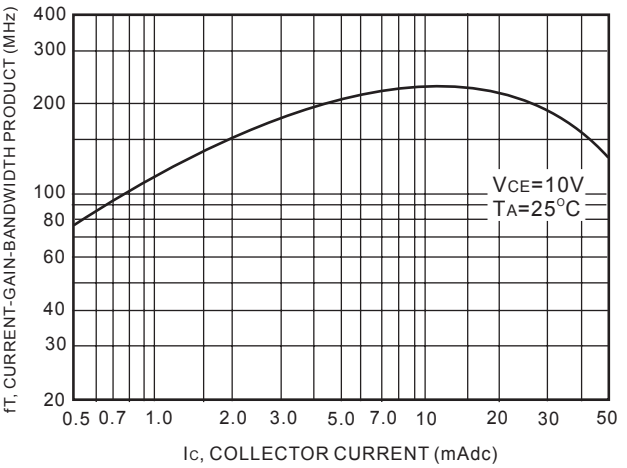


Figure 6. Current-Gain-Bandwidth Product

BC847BFN3

ELECTRICAL CHARACTERISTICS CURVE

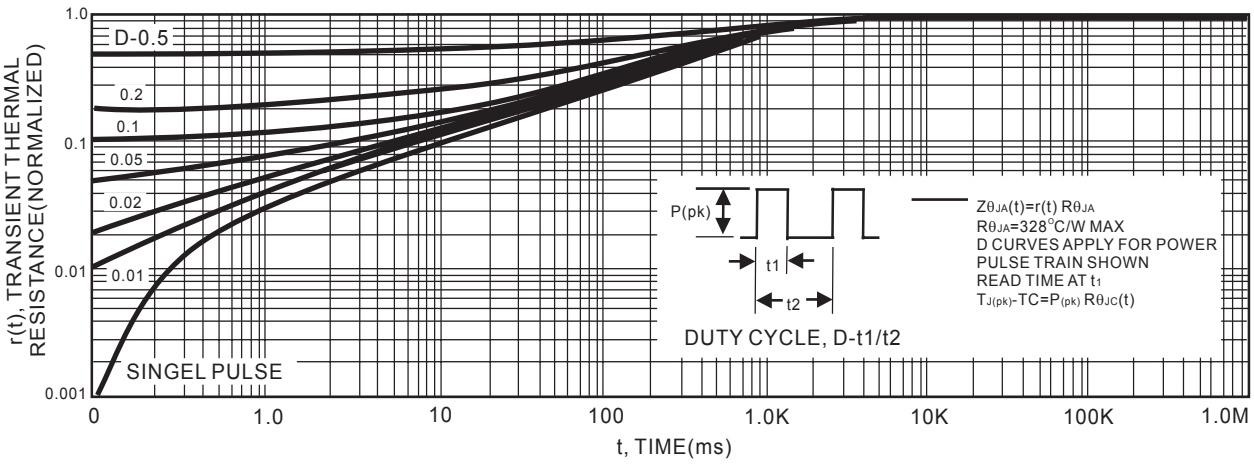


Figure 7. Thermal Response

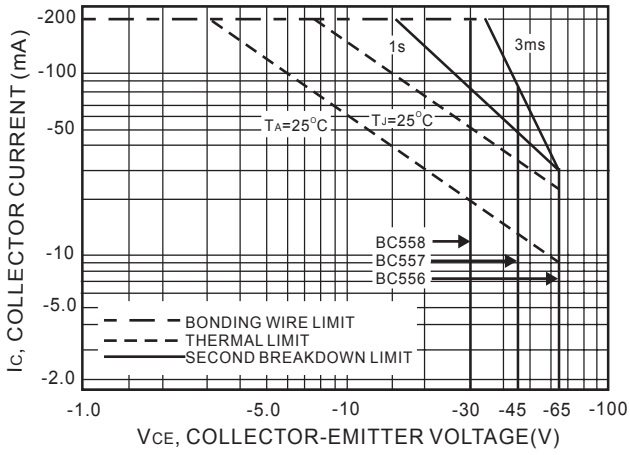


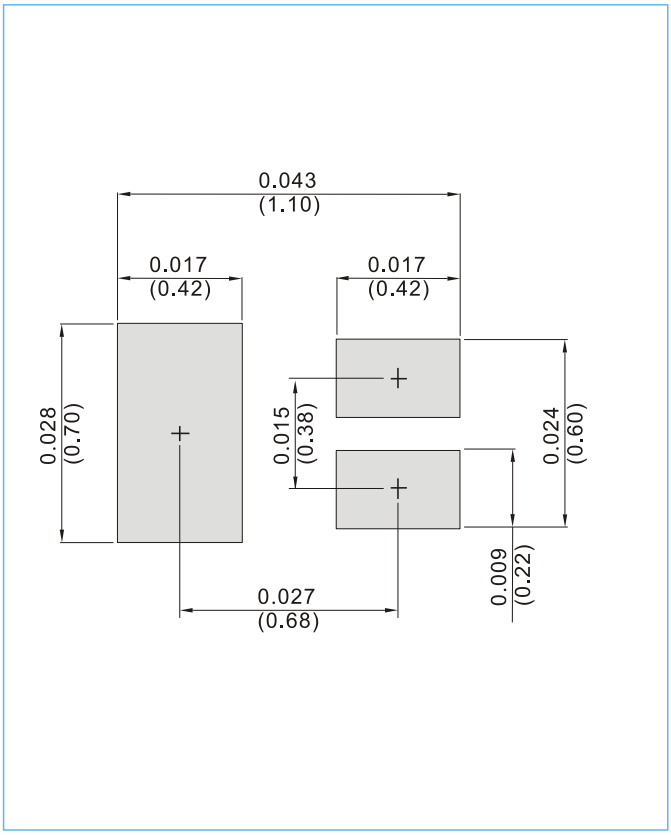
Figure 8. Active Region Safe Operating Area

The safe operating area curves indicate Ic-Vce limits of the transistor that must be observed for reliable operation. Collector load lines for specific circuits must fall below the limits indicated by the applicable curve.
The data of Figure 26 is based upon Tj(pk)=150°C; Tc or Ta is variable depending upon conditions. Pulse curves are valid for duty cycles to 10% prodided Tj(pk) < 150°C. Tj(pk) may be calculated from the data in Figure 25. At high case or ambient temperatures, thermal limitations will reduce the power that can be handled to values less than the limitations imposed by the secondary break-down.

BC847BFN3

MOUNTING PAD LAYOUT

DFN 3L Unit : inch(mm)



ORDER INFORMATION

- Packing information

  T/R - 8K per 7" plastic Reel

BC847BFN3

Part No_packing code_Version

BC847BFN3_R1_00001

For example :

RB500V-40_R2_00001

- RB500V-40 — Part No.
- R2 — Packing type means T/R
- 2 — Packing size code means 13"
- 0 — Version code means HF
- 00001 — Serial number

Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th 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			

BC847BFN3

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.

单击下面可查看定价，库存，交付和生命周期等信息

>>Panjit(强茂)