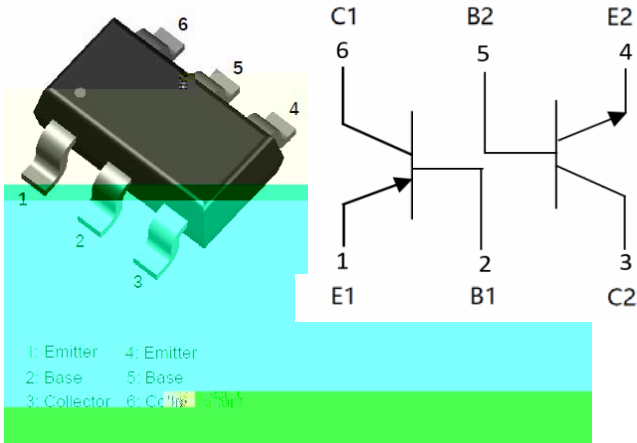


## PNP+NPN Transistor



### Features

- Moisture sensitivity level 1
- Halogen free and RoHS compliant
- Surface mount package ideally suited for automatic Insertion

### Application

- Signal amplification
- Switching circuit

### Mechanical data

**Package** SOT-23-6L

**Terminals** Tin plated leads, solderable per J-STD-002 and JESD22-B102

### Maximum Ratings (Ta=25 Unless otherwise specified)

TR1 PNP Pin1 2 6

Item	Symbol	Unit	Conditions	Value
Device marking code			BC847DPN-Y	7Y
			BC847DPN-G	7G
Collector-base voltage	$V_{CBO}$	V	$I_C = -100\mu A, I_E = 0$	-50
Collector-emitter voltage	$V_{CEO}$	V	$I_C = -1mA, I_B = 0$	-50
Emitter-base voltage	$V_{EBO}$	V	$I_E = -100\mu A, I_C = 0$	-5
Collector current	$I_C$	mA		-150
Power dissipation	$P_D$	mW		300
Operation junction temperature	$T_j$			-55 to +150
Storage temperature	$T_{STG}$			-55 to +150



# BC847DPN

RoHS  
COMPLIANT

TR2 NPN Pin3 4 5

Item	Symbol	Unit	Conditions	Value
Collector-base voltage	$V_{CB0}$	V	$I_C=100\mu A, I_E=0$	60



# BC847DPN

RoHS  
COMPLIANT

TR1 PNP Pin1 2 6

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	$I_C=-100\mu A, I_E=0$	-50		
Collector-emitter breakdown voltage	V					



## Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R J-A <sup>(1)</sup>	/W	417
Thermal resistance, junction-to-case	R J-C <sup>(1)</sup>	/W	334

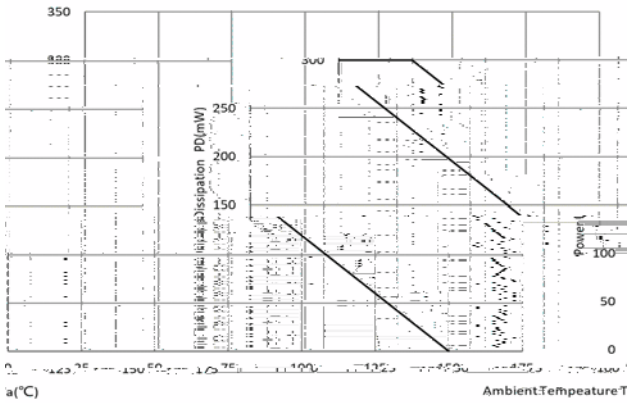
### Note:

1 Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 25.4\*25.4mm copper pad areas





Fig 7  $P_D$ - $T_a$  Curve



TR2 NPN Pin3 4 5

Fig 1 Static Characteristics

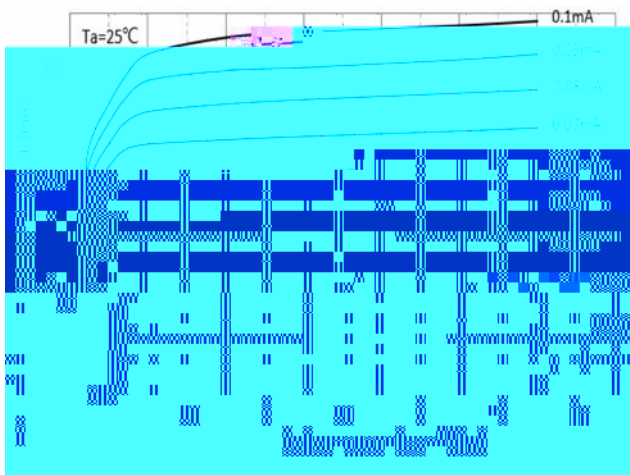


Fig 3 Collector-Emitter Saturation Voltage

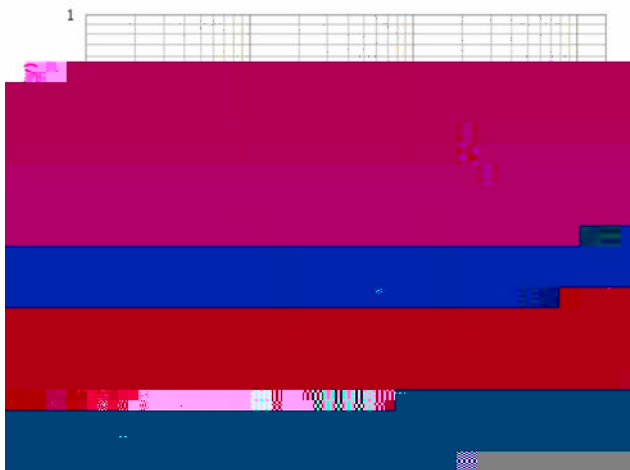


Fig 2 DC Current Gain

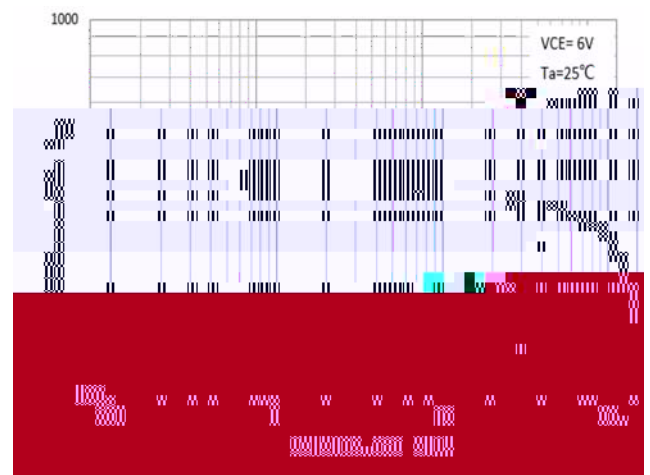


Fig 4 Base-Emitter Saturation Voltage

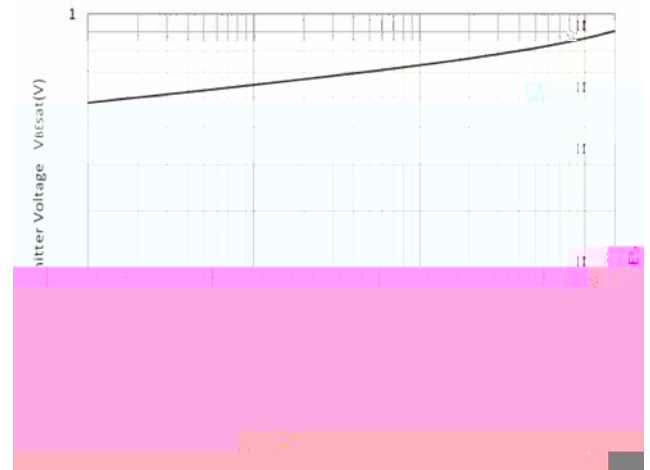




Fig 5 Base-Emitter On Voltage

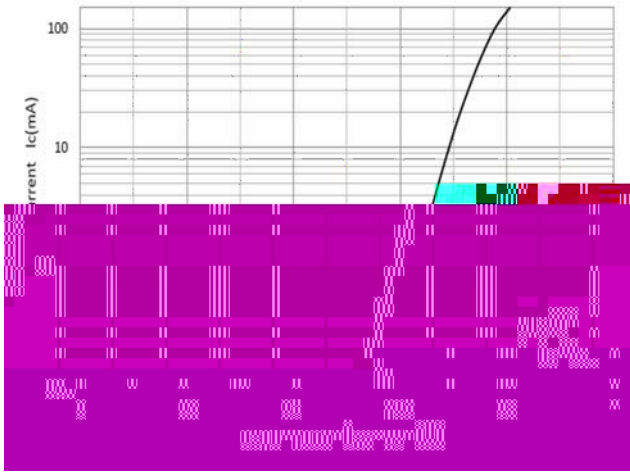
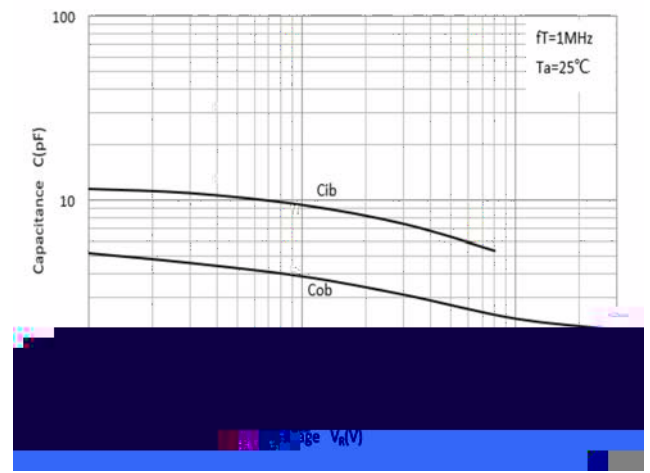


Fig 6 Cob/Cib- $V_{CB}/V_{EB}$



# BC847DPN

RoHS  
COMPLIANT

Part P/N	Packing Code	Unit weight(mg)	
----------	--------------	-----------------	--



---

**Disclaimer**

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to modify the information without notice.