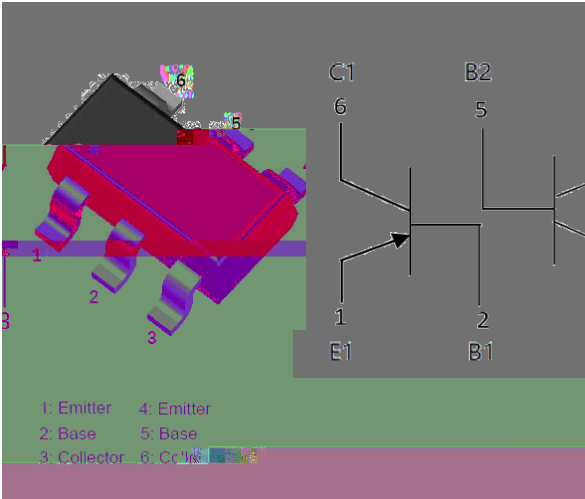




BC847DPN

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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_{CB0}	V	$I_C=-100\mu A, I_E=0$	-50
Collector-emitter voltage	V_{CE0}	V	$I_C=-1mA, I_B=0$	-50
Emitter-base voltage	V_{EB0}	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



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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



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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					



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Thermal Characteristics

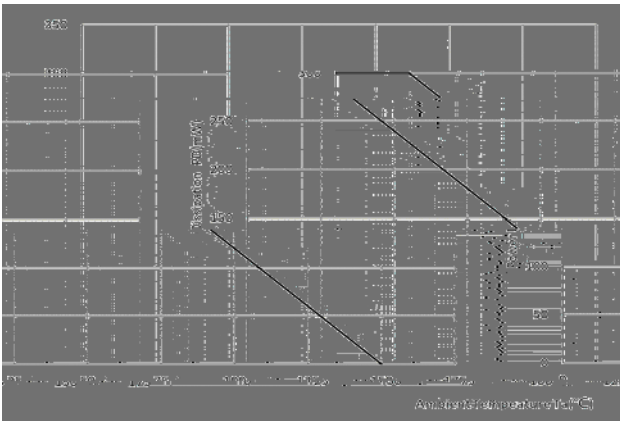
Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R J-A ⁽¹⁾	/W	417
Thermal resistance, junction-to-case	R J-C ⁽¹⁾	/W	334

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

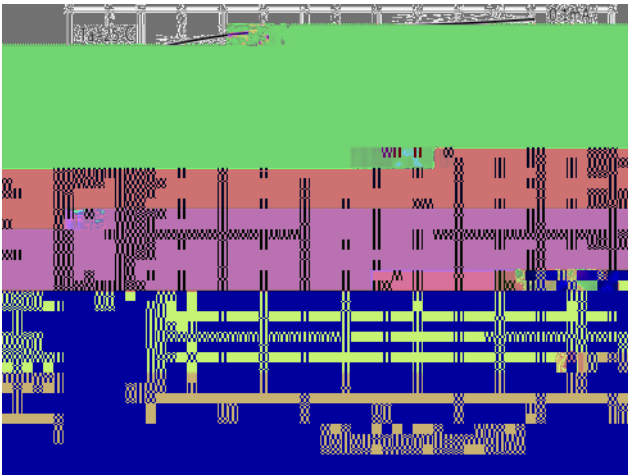


Fig 2 DC Current Gain

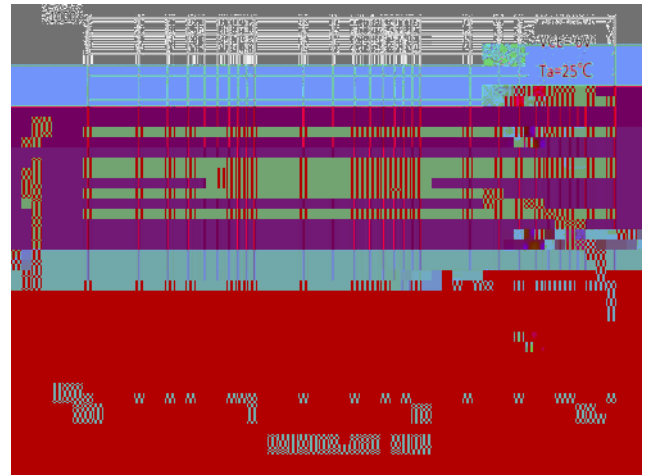


Fig 3 Collector-Emitter Saturation Voltage

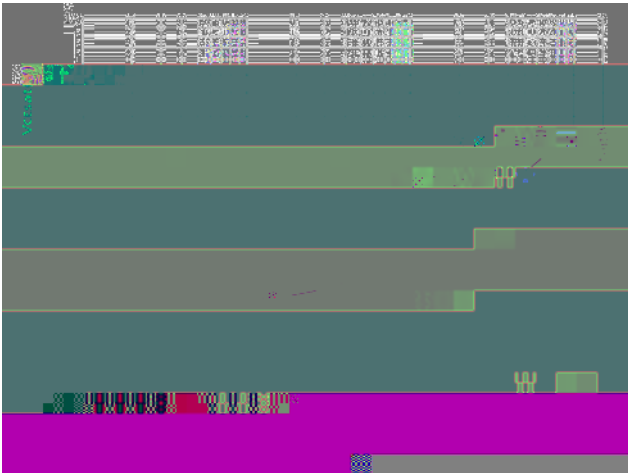


Fig 4 Base-Emitter Saturation Voltage

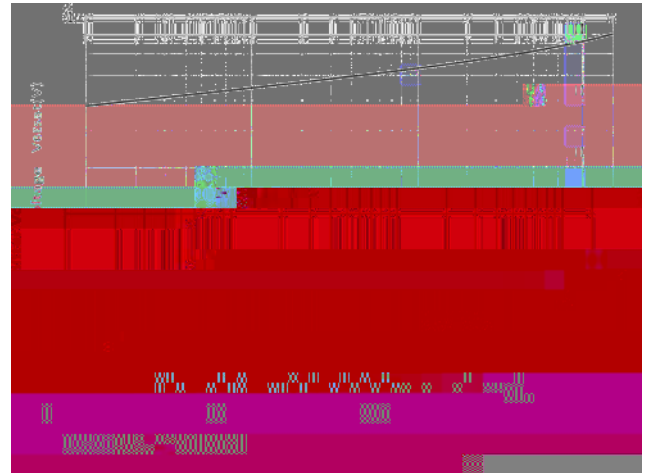




Fig 5 Base-Emitter On Voltage

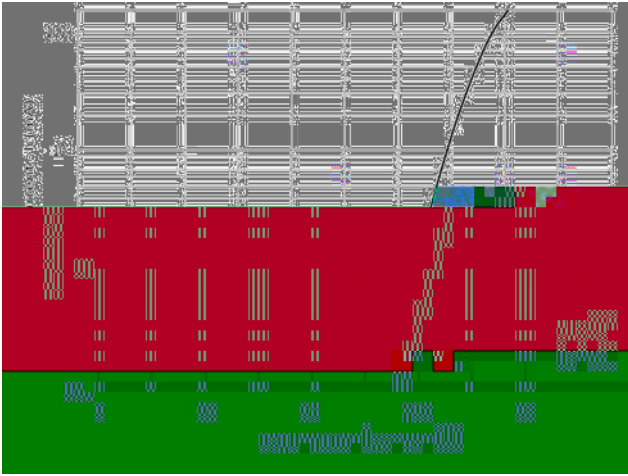
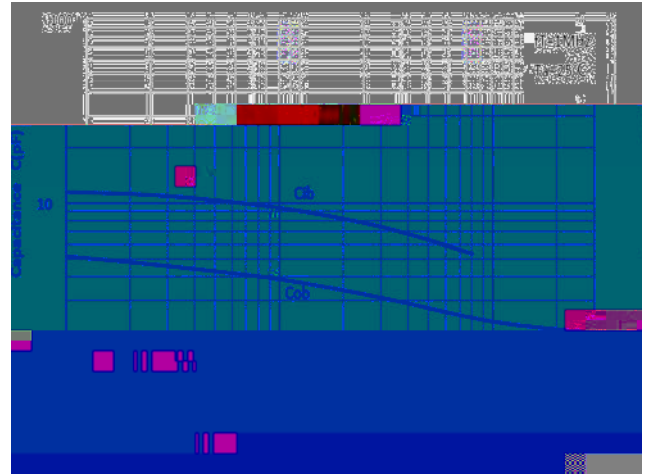


Fig 6 Cob/Cib-V_{CB}/V_{EB}





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