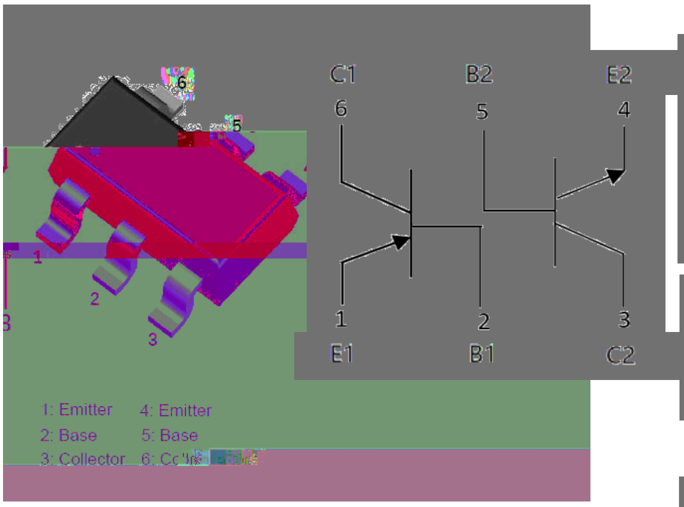
PNP+NPN Transistor



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=-100uA, 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=-100uA, 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

TR2 NPN Pin3 4 5

Item	Symbol	Unit	Conditions	Value
Collector-base voltage	V_{CBO}	V	I_C=100uA, I_E=0	60

TR1 PNP Pin1 2 6

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

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	RθJ-A(1)	/W	417
Thermal resistance, junction-to-case	RθJ-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-Ta Curve

TR2 NPN Pin3　4　5

Fig 1　Static Characteristics

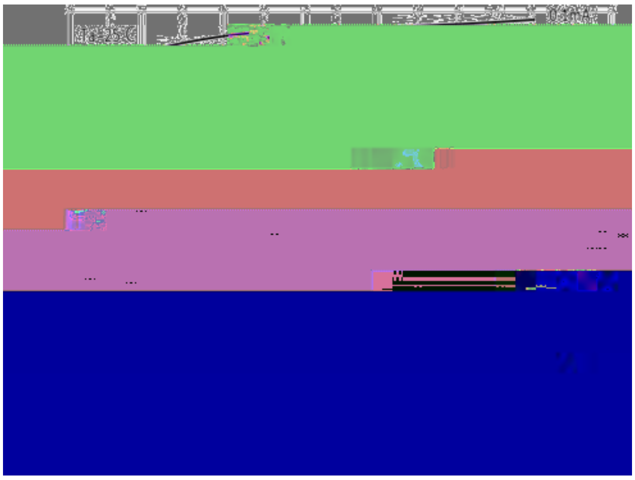


Fig 2　DC Current Gain

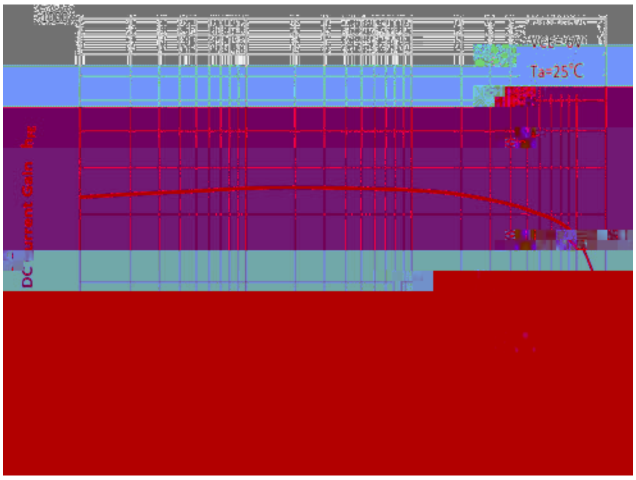


Fig 3　Collector-Emitter Saturation Voltage

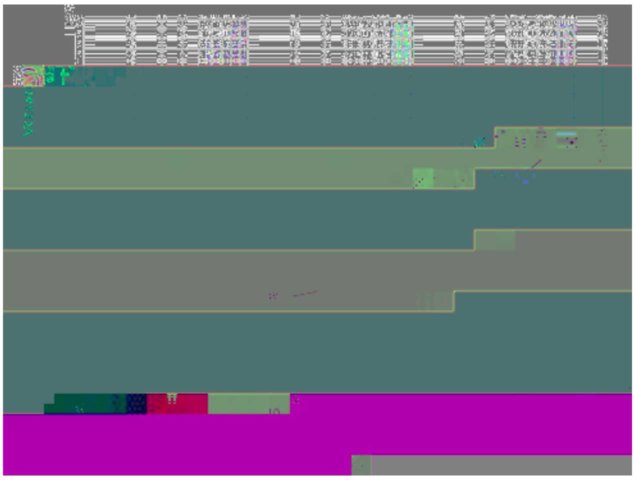


Fig 4　Base-Emitter Saturation Voltage

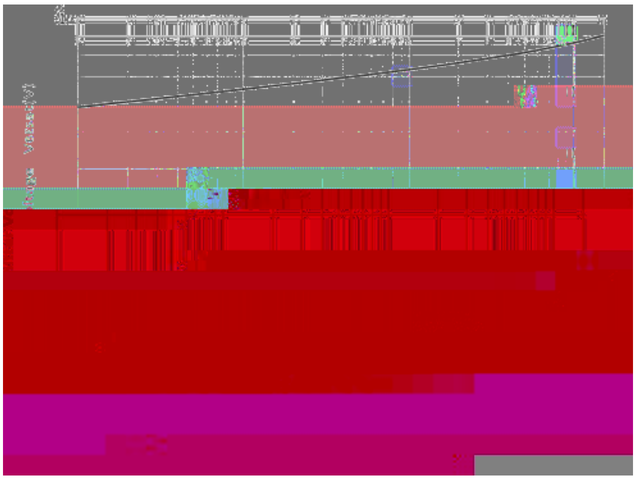


Fig 5　Base-Emitter On Voltage

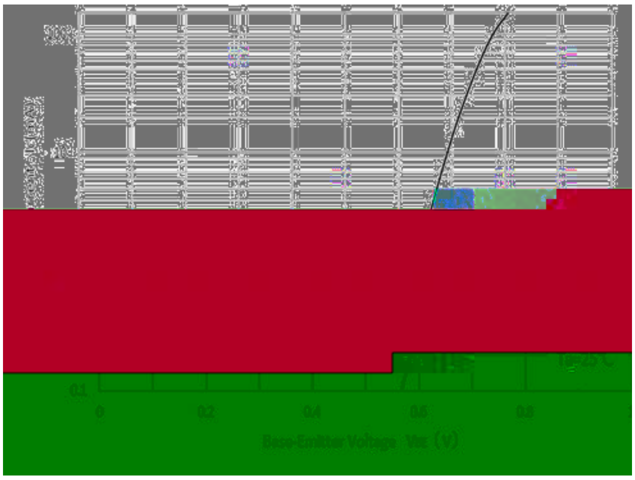
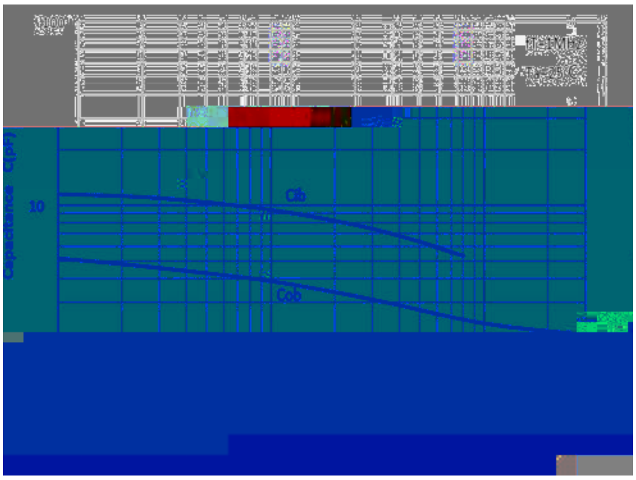


Fig 6　Cob/Cib-V_{CB}/V_{EB}



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