

BC847CSTB6

DUAL NPN GENERAL PURPOSE TRANSISTOR

VOLTAGE 45 Volts **POWER** 210 mWatts

SOT-563

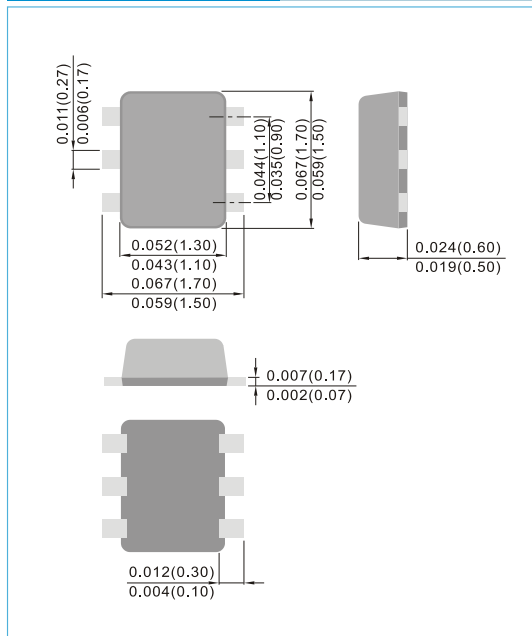
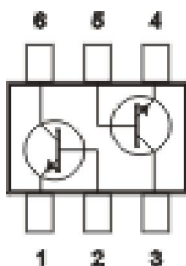
Unit : inch(mm)

FEATURES

- NPN epitaxial silicon, planar design
- Collector-emitter voltage $V_{CE} = 45V$
- Collector current $I_C = 100mA$
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (HalogenFree)

MECHANICAL DATA

- Case: SOT-563, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.003 grams
- Marking: T7



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}	210	mW
Thermal Resistance , Junction to Ambient (Note 1)	$R_{\theta JA}$	590	$^{\circ}C/W$
Operating Junction Temperature and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^{\circ}C$

Note

1: Mounted on 1cm² minimum pad PCB.



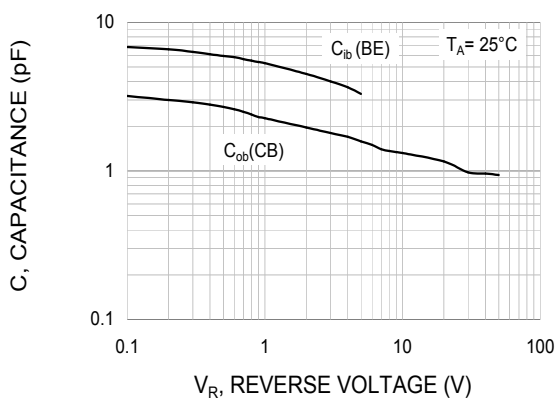
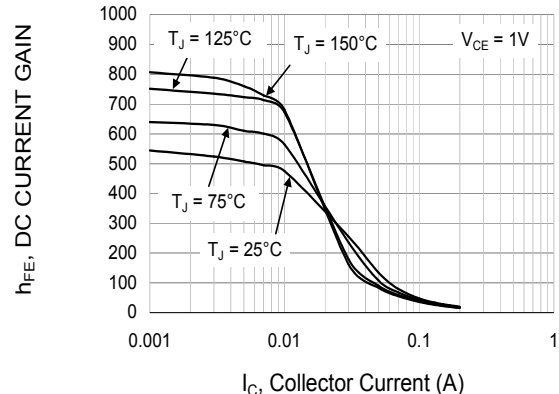
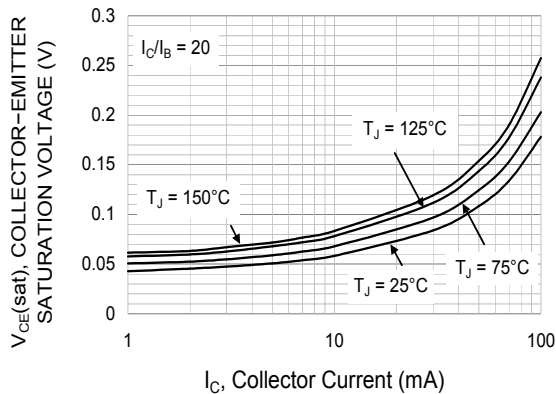
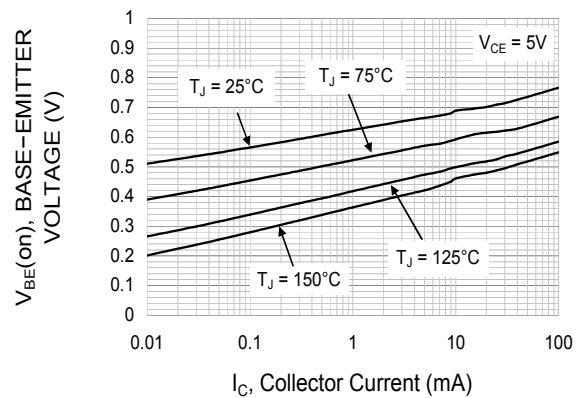
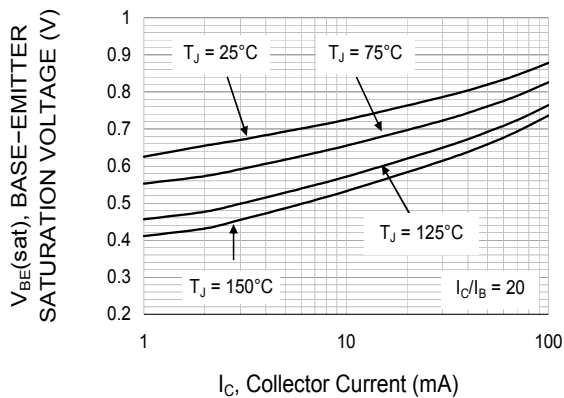
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ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	45	-	-	V
Collector - Emitter Breakdown Voltage	$V_{(BR)CES}$	$I_C=10\mu A, V_{EB}=0$	50	-	-	V
Collector - Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	50	-	-	V
Emitter - Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1.0\mu A, I_C=0$	6.0	-	-	V
Collector Cutoff Current	I_{CEO}	$V_{CB}=30V, I_E=0$	-	-	15	nA
DC Current Gain	h_{FE}	$I_C=2.0mA, V_{CE}=5.0V$	420	520	800	-
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	$V_{BE(SAT)}$	$I_C=10mA, I_B=0.5mA$ $I_C=100mA, I_B=5.0mA$	- -	0.7 0.9	- -	V
Base - Emitter Voltage	$V_{BE(ON)}$	$I_C=2.0mA, V_{CE}=5.0V$ $I_C=10mA, V_{CE}=5.0V$	580 -	650 -	700 770	mV
Output Capacitance	C_{CB}	$V_{CB}=10V, I_E=0, f=1.0MHz$	-	-	1.5	pF

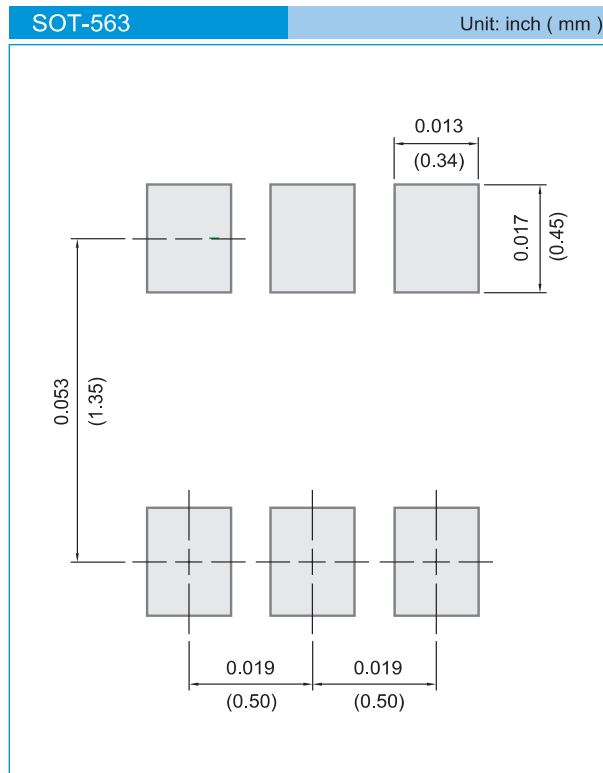
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RATING AND CHARACTERISTIC CURVES



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information

T/R - 4K per 7" plastic Reel

T/R - 10K per 13" plastic Reel

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Part No_packing code_Version

BC847CSTB6_R1_00001

BC847CSTB6_R2_00001

For example :

RB500V-40_R2_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

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			



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