



# BC856BS

## PNP GENERAL PURPOSE DUAL TRANSISTORS

<b>VOLTAGE</b>	<b>65 Volt</b>	<b>POWER</b>	<b>150 mWatt</b>
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### FEATURES

- General purpose amplifier applications
- Collector current  $I_c = 100\text{mA}$
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOT-363, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.006 grams.
- Marking :56S

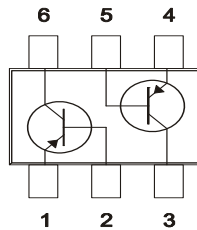
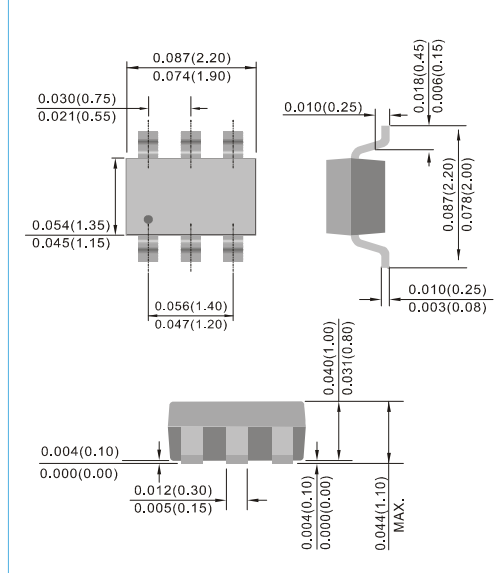


Fig.53

### SOT-363 Unit : inch(mm)



## ABSOLUTE RATINGS

Parameter	Symbol	Value	Units
Collector - Emitter Voltage	$V_{CEO}$	-65	V
Collector - Base Voltage	$V_{CBO}$	-80	V
Emitter - Base Voltage	$V_{EBO}$	-5.0	V
Collector Current - Continuous	$I_c$	-100	mA

## THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Max .Total Power Dissipation	$P_{TOT}$	150	mW
Operating Junction Temperature and Storage Temperature range	$T_J, T_{STG}$	-55 to 150	°C



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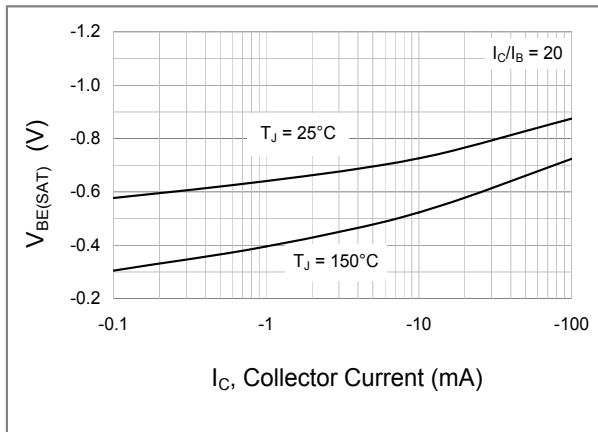
## ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10mA$	-65	-	-	V
Collector - Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, V_{EB} = 0$	-80	-	-	V
Emitter - Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -1.0\mu A$	-5.0	-	-	V
Collector-Base Cutoff Current	$I_{CBO}$	$V_{CB} = -30V, I_E = 0$	-	-	-15	nA
DC Current Gain	$h_{FE}$	$I_C = -2.0mA, V_{CE} = -5V$	220	-	475	-
Collector - Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = -10mA, I_B = -0.5mA$ $I_C = -100mA, I_B = -5.0mA$	-	-	-0.3 -0.65	V
Base - Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C = -10mA, I_B = -0.5mA$	-0.6	-	-0.9	V
Collector capacitance	$C_{CB}$	$V_{CB} = 10V, I_E = 0A$	-	1.9	-	pF
Emitter Capacitance	$C_{EB}$	$V_{EB} = 0.5V, I_C = 0A$	-	11	-	pF
Gain-Bandwidth Product	$f_T$	$V_{CE} = -5V, I_C = -10mA$ $f = 100MHz$	100	-	-	MHz

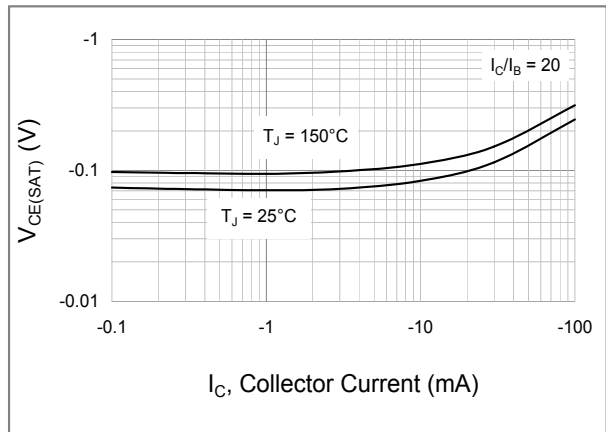


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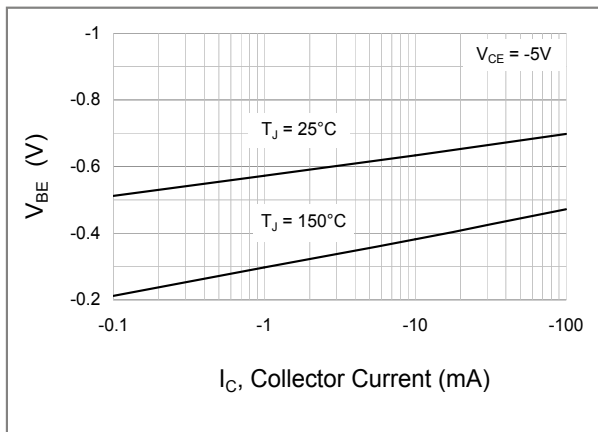
## ELECTRICAL CHARACTERISTICS CURVE



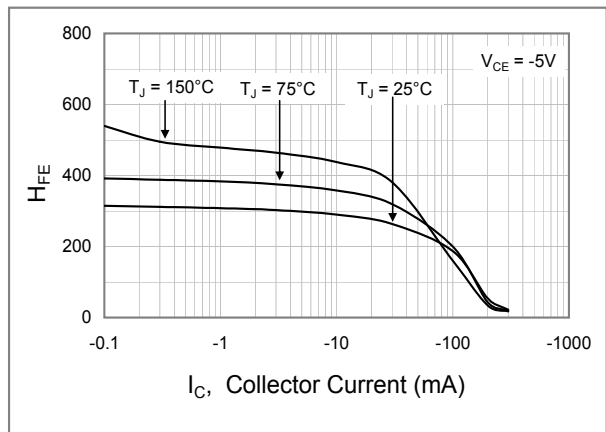
**Fig.1 Base-Emitter Saturation Voltage VS Collector Current**



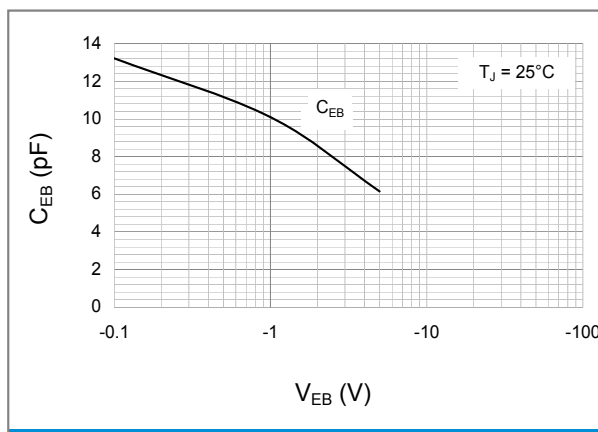
**Fig.2 Collector-Emmitter Saturation Voltage VS Collector Current**



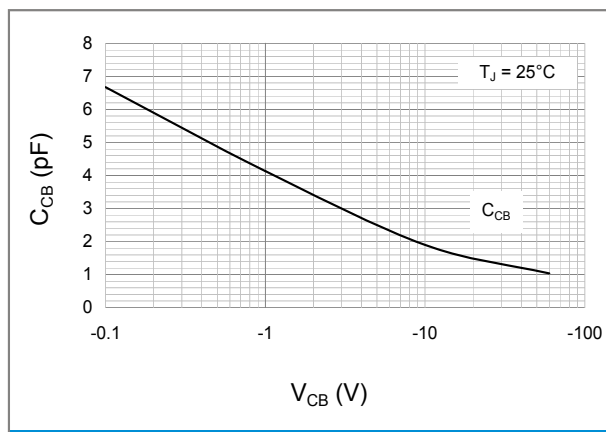
**Fig.3 Base-Emitter Voltage VS Collector Current**



**Fig.4 Typical DC Current Gain VS Collector Current**



**Fig.5 Emitter Capacitance VS Emitter-Base Voltage**



**Fig.6 Collector Capacitance VS Collector-Base Voltage**

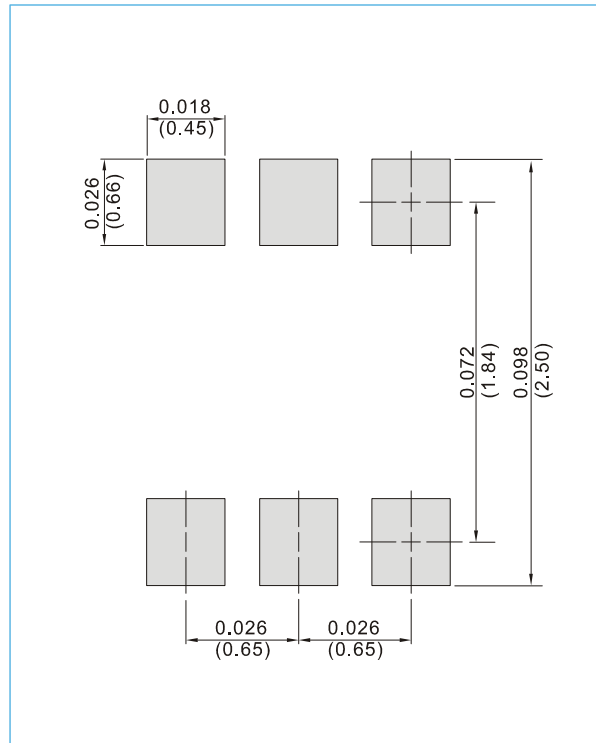


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## MOUNTING PAD LAYOUT

SOT-363

Unit : inch(mm)



## ORDER INFORMATION

- Packing information
  - T/R - 10K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel



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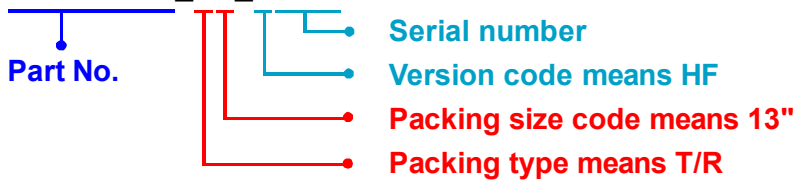
## Part No\_packing code\_Version

BC856BS\_R1\_00001

BC856BS\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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