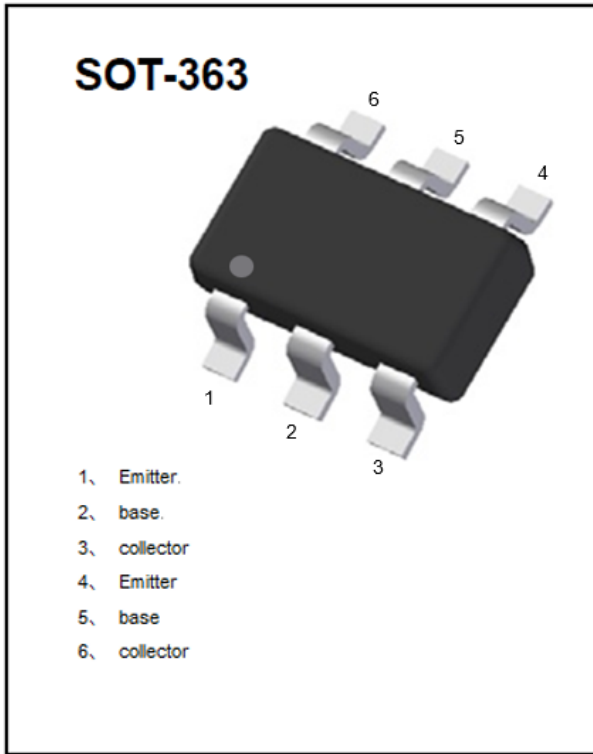


## Dual PNP Small Signal Transistor



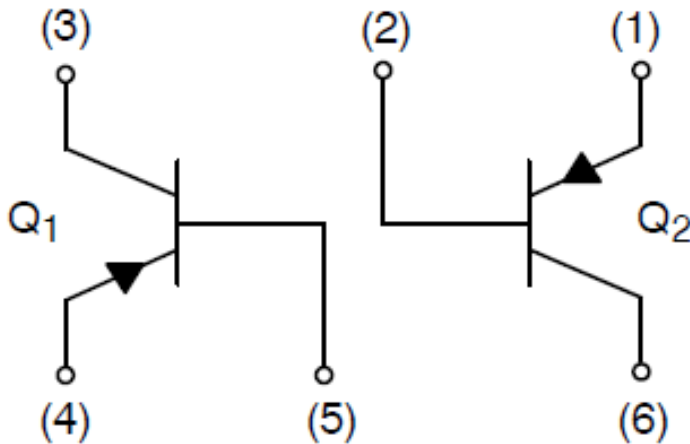
### Features

- Epoxy meets UL-94 V-0 flammability rating
- Surface mount package ideally Suited for Automatic Insertion
- PNP

### Mechanical Data

- **Package:** SOT-363
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** 3F

### Equivalent circuit





# BC857BS

## ■Maximum Ratings (Ta=25°C Unless otherwise specified)

### Q1&Q2-PNP

Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	VCBO	V	IC=-10μA,IE=0	-50
Collector-Emitter Voltage	VCEO	V	IC=-10mA,IB=0	-45
Emitter-Base Voltage	VEBO	V	IE=-10μA,IC=0	-5
Collector Current	IC	mA		-100
Total Device Dissipation	PC	mW		300
Junction Temperature	Tj	°C		-55 to +150
Storage Temperature	TSTG	°C		-55 to +150

## ■Electrical Characteristics (Ta=25°C unless otherwise specified)

### Q1&Q2-PNP

Item	Symbol	Unit	Conditions	Min	TYP	Max
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	V	IC=-10μA,IE=0	-50		
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	V	IC=-10mA,IB=0	-45		
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	V	IE=-10μA,IC=0	-5		
Collector cut-off current	I <sub>CBO</sub>	nA	VCB=-30V,IB=0			-15
DC current gain	h <sub>FE</sub>		VCE=-5V,IC=-2mA	220		475
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	V	IC=-10mA,IB=-0.5mA			-0.3
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	V	IC=-100mA,IB=-5mA			-0.65
Base-emitter Voltage	VBE	V	VCE=-5V,IC=-2mA	-0.6		-0.75
			VCE=-5V,IC=-10mA			-0.82
Transition frequency	Ft	MHz	VCE=-5V,IC=-10mA,f=100MHz		200	

## ■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BC857BS	F2	Approximate 0.009g	3000	30000	120000	7" reel



■ Characteristics (Typical)  
Q1&Q2-PNP

Fig. 1 - Static Characteristics

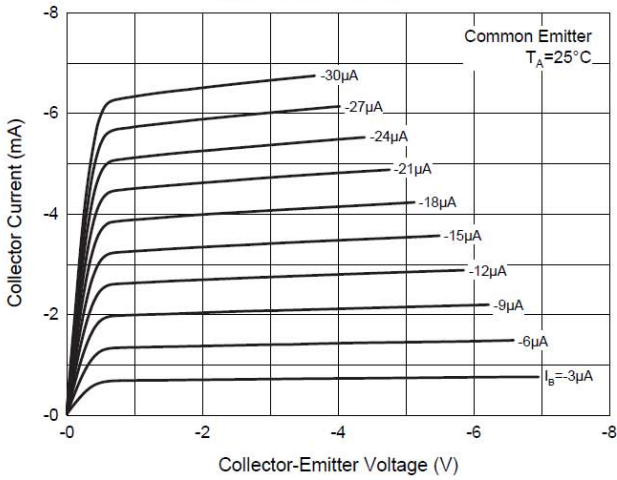


Fig. 2 - DC Current Gain Characteristics

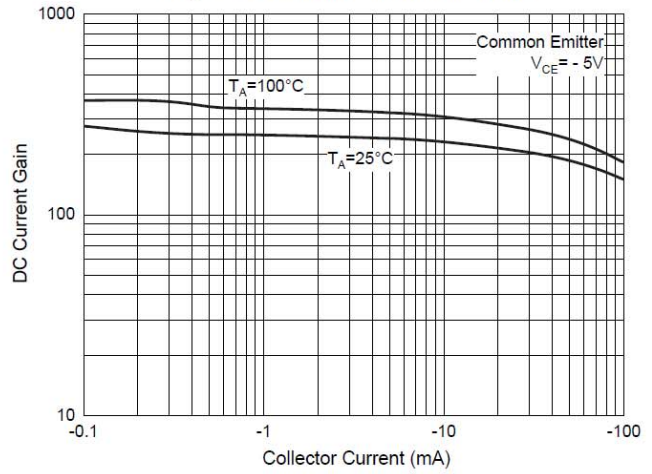


Fig. 3 - Collector-Emitter Saturation Voltage Characteristics

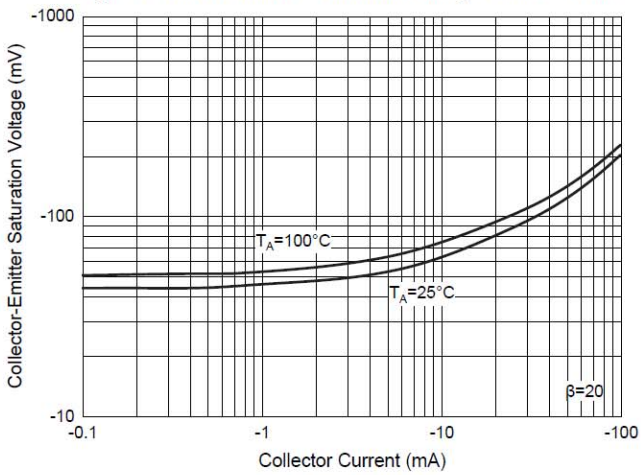


Fig. 4 - Base-Emitter Saturation Voltage Characteristics

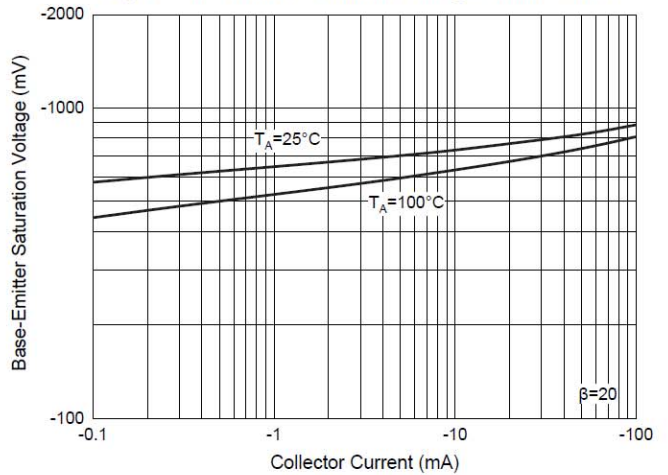


Fig. 5 - Base-Emitter Voltage Characteristics

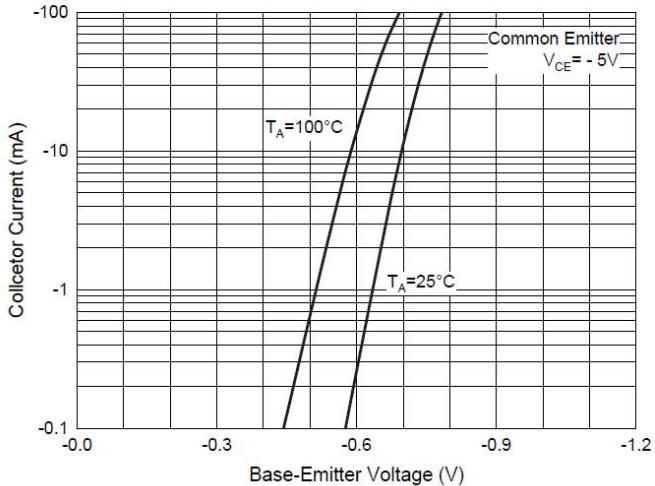
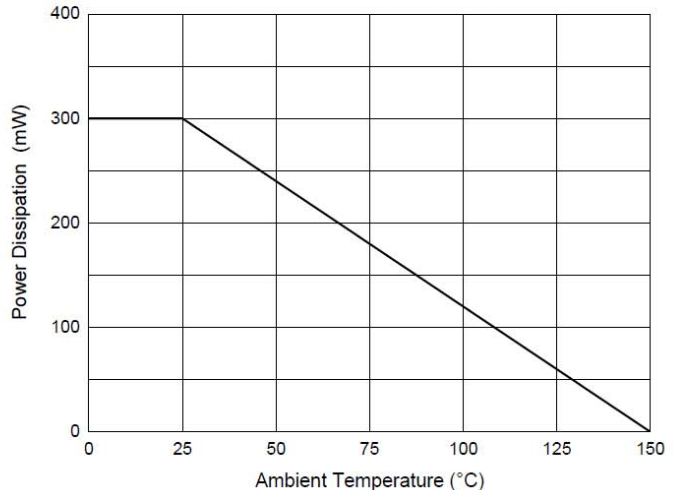


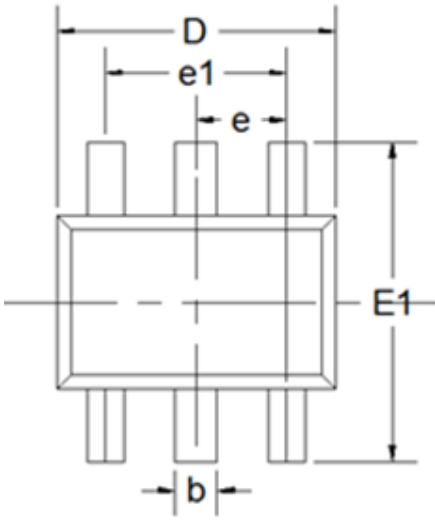
Fig. 6 - Power Derating Curve



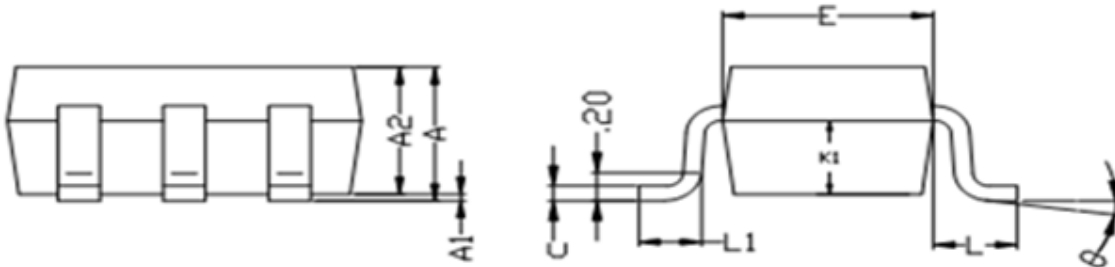


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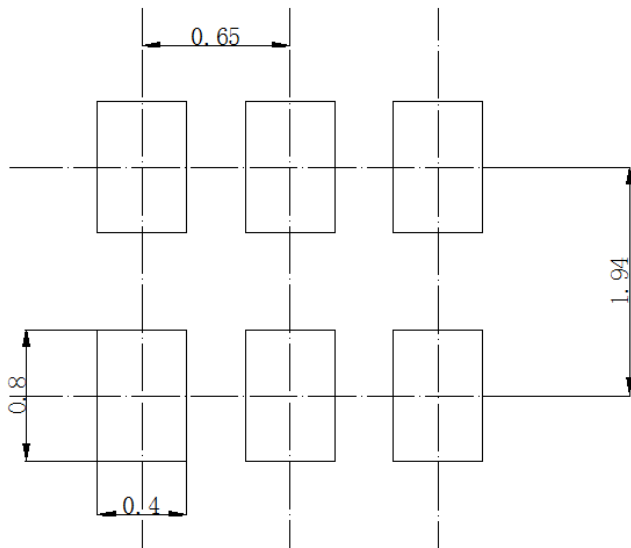
## ■SOT-363 Package Outline Dimensions



DIM	DIMENSIONS			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.035	0.043	0.9	1.1
A1	0	0.004	0	0.1
A2	0.035	0.039	0.9	1
b	0.006	0.014	0.15	0.35
c	0.002	0.01	0.05	0.25
D	0.071	0.087	1.8	2.2
E	0.045	0.053	1.15	1.35
E1	0.085	0.096	2.15	2.45
e	0.026Typ		0.65Typ	
e1	0.047	0.055	1.2	1.4
L	0.021Typ		0.525Typ	
L1	0.01	0.018	0.26	0.46
φ	0°	8°	0°	8°



## ■SOT-363 Suggested Pad Layout



Unit: mm



## BC857BS

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