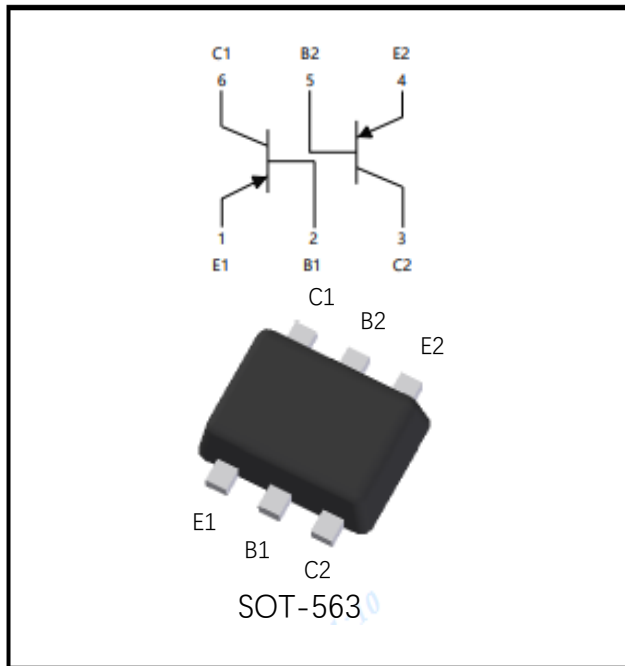


Dual PNP Small Signal Transistor



Features

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

Mechanical Data

- **Package:** SOT-563
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** K5V
- **Solid point:** E1 positioning point

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

Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	V_{CBO}	V	$I_C = -10\mu A, I_E = 0$	-50
Collector-Emitter Voltage	V_{CEO}	V	$I_C = -10mA, I_B = 0$	-45
Emitter-Base Voltage	V_{EBO}	V	$I_E = -1\mu A, I_C = 0$	-5
Collector Current	I_C	mA		-100
Total Device Dissipation	PC	mW		150
Junction Temperature	T_J	°C		-55 to +150
Storage Temperature	T_{STG}	°C		-55 to +150



BC857BV

■Electrical Characteristics (Ta=25℃ unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	TYP	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	$I_C=-10\mu A, I_E=0$	-50		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	$I_C=-10mA, I_B=0$	-45		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	$I_E=-1\mu A, I_C=0$	-5		
Collector cut-off current	I_{CBO}	nA	$V_{CB}=-30V, I_B=0$			-15
Emitter-Base Cutoff Current	I_{EBO}	nA	$V_{EB}=-5V, I_C=0$			-100
DC current gain	h_{FE}		$V_{CE}=-5V, I_C=-2mA$	220		475
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=-10mA, I_B=-0.5mA$			-0.1
		V	$I_C=-100mA, I_B=-5mA$			-0.4
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=-10mA, I_B=-0.5mA$		-0.7	
		V	$I_C=-100mA, I_B=-5mA$		-0.9	
Base-emitter Voltage	V_{BE}	V	$V_{CE}=-5V, I_C=-2mA$	-0.6		-0.75
			$V_{CE}=-5V, I_C=-10mA$			-0.82
Transition frequency	f_t	MHz	$V_{CE}=-5V, I_C=-10mA, f=100MHz$		200	

■ Ordering Information (Example)

Preferred P/N	Packing Code	Unit Weight(G)	Minimum Package(Pcs)	Inner Box Quantity(Pcs)	Outer Carton Quantity(Pcs)	Delivery Mode
BC857BV	F2	Approximate 0.0035	3000	30000	120000	7" reel



■ Characteristics (Typical)

Fig. 1 - Static Characteristics

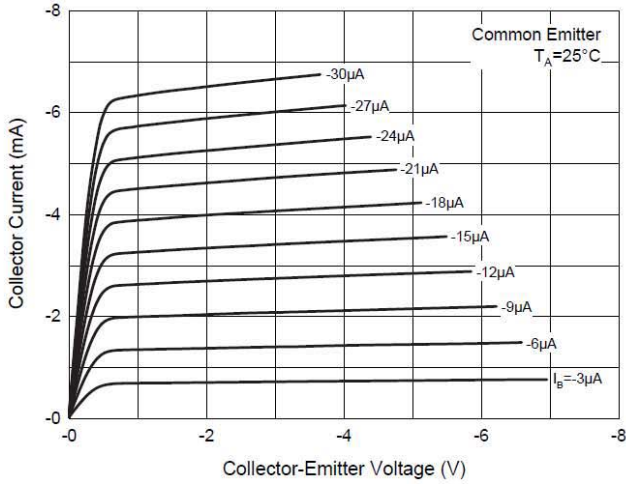


Fig. 2 - DC Current Gain Characteristics

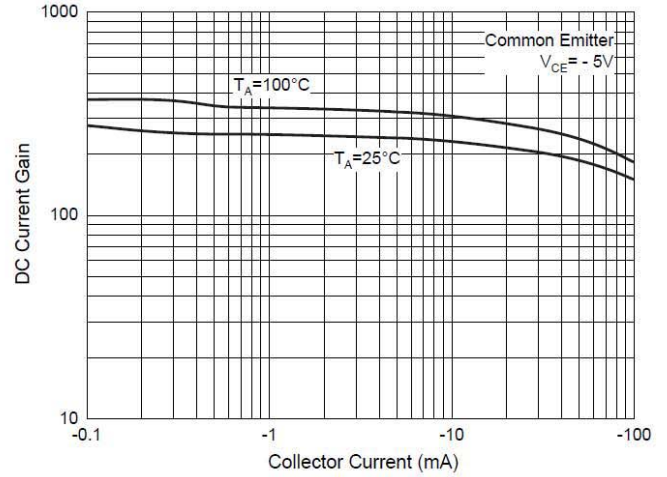


Fig. 3 - Collector-Emitter Saturation Voltage Characteristics

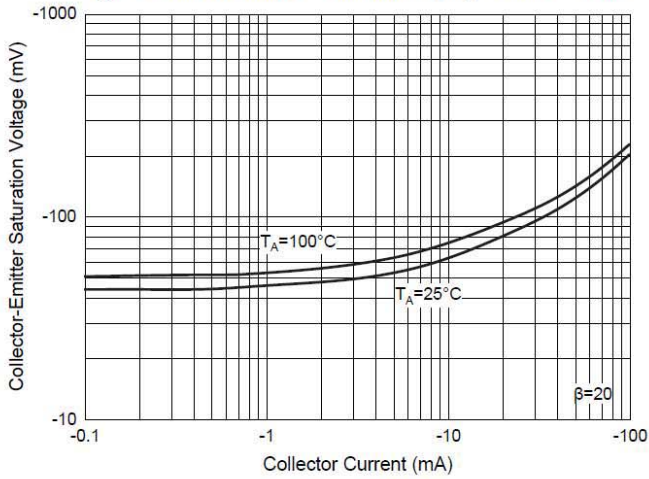


Fig. 4 - Base-Emitter Saturation Voltage Characteristics

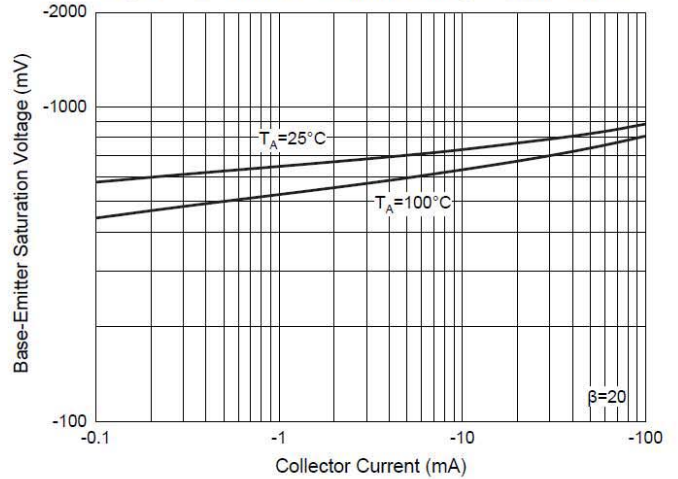


Fig. 5 - Base-Emitter Voltage Characteristics

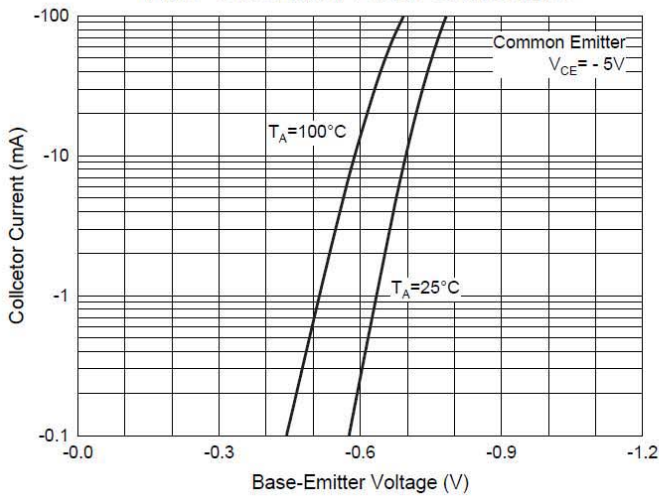
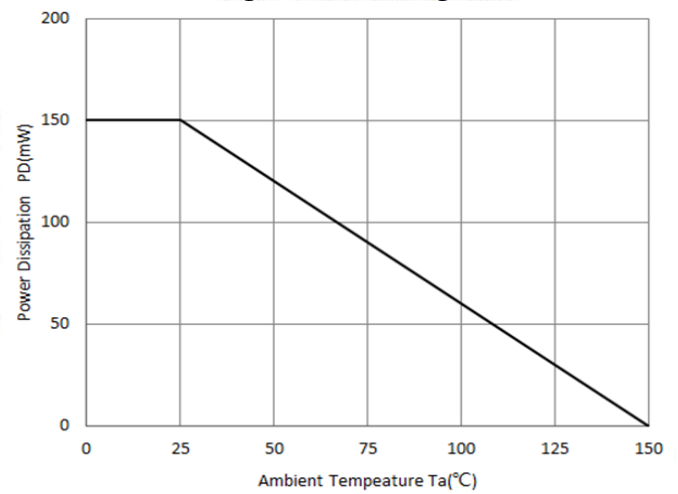
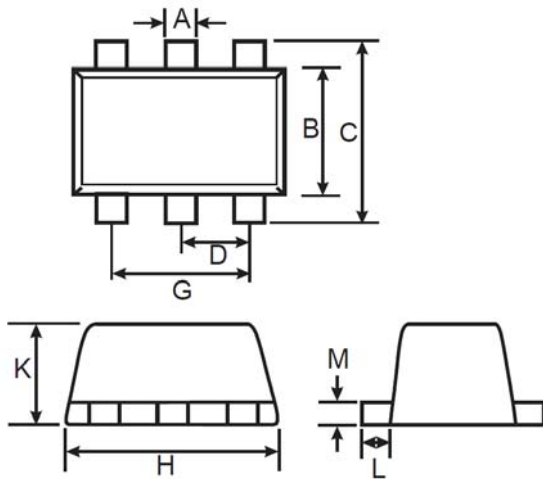


Fig. 6 - Power Derating Curve



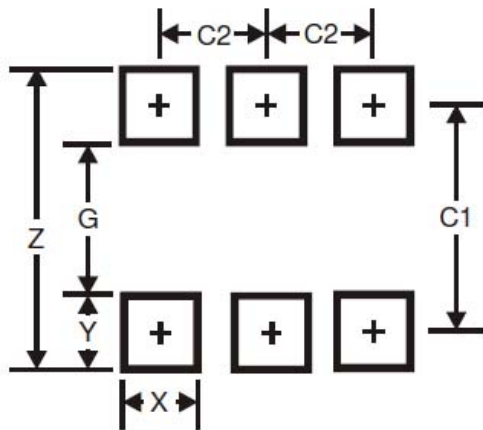


■ SOT-563 Package Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.006	0.011	0.15	0.30
B	0.043	0.051	1.10	1.30
C	0.059	0.067	1.50	1.70
D	0.016	0.024	0.40	0.60
G	0.035	0.043	0.90	1.10
H	0.059	0.067	1.50	1.70
K	0.021	0.026	0.55	0.65
L	0.004	0.011	0.10	0.30
M	0.004	0.007	0.10	0.18

■ SOT-563 Suggested Pad Layout



Dimensions	Value (in mm)
Z	2.2
G	1.2
X	0.375
Y	0.5
C1	1.7
C2	0.5



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