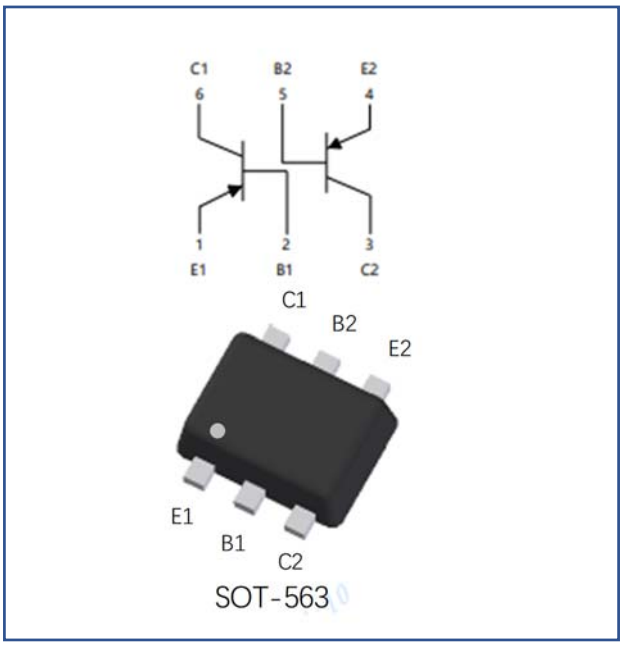
Dual PNP Small Signal Transistor



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-563
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ **Maximum Ratings** (T_a=25℃ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Device marking code				K5V
Collector-base voltage	V_{CBO}	V	I_C=-10uA,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=-1uA,I_C=0	-5
Collector current	I_C	mA		-100
Power dissipation	P_D	mW		150
Junction temperature	T_J	℃		-55 to +150
Storage temperature	T_{STG}	℃		-55 to +150

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

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	I_C=-10uA,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=-1uA,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	$V_{CE(sat)1}$	V	I_C=-10mA,I_B=-0.5mA			-0.1
	$V_{CE(sat)2}$	V	I_C=-100mA,I_B=-5mA			-0.4
Base-emitter saturation voltage	$V_{BE(sat)1}$	V	I_C=-10mA,I_B=-0.5mA		-0.7	
	$V_{BE(sat)2}$	V	I_C=-100mA,I_B=-5mA		-0.9	
Base-emitter voltage	V_{BE1}	V	V_{CE}=-5V,I_C=-2mA	-0.6		-0.75
	V_{BE2}	V	V_{CE}=-5V, I_C=-10mA			-0.82
Transition frequency	f_T	MHz	V_{CE}=-5V,I_C=-10mA,f=100MHz		200	

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	$R_{\theta J-A}$(1)	℃/W	833
Thermal resistance, junction-to-case	$R_{\theta J-C}$(1)	℃/W	667

Note:

（1）Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 25.4mm*25.4mm copper pad areas

■Characteristics

Fig 1：Static Characteristics

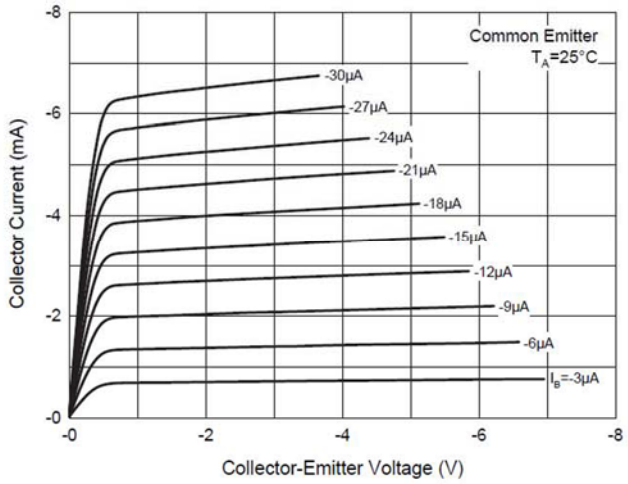


Fig 2：DC Current Gain Characteristics

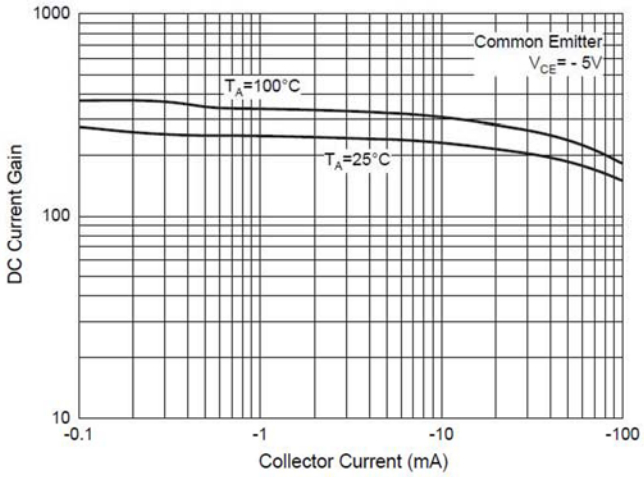


Fig 3：Collector-Emitter Saturation Voltage

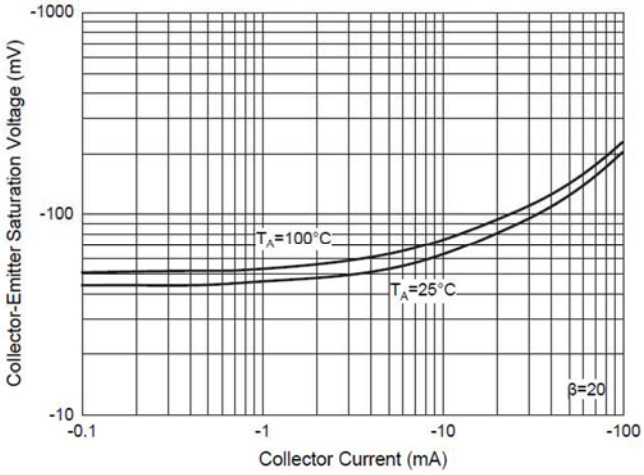


Fig 4：Base-Emitter Saturation Voltage

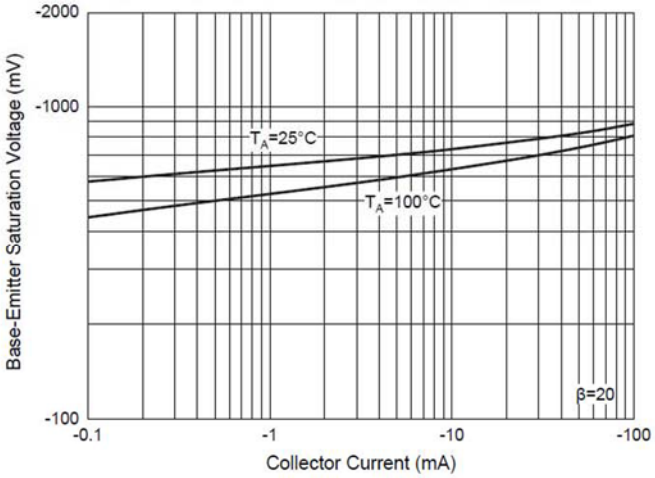


Fig 5：Base-Emitter on Voltage

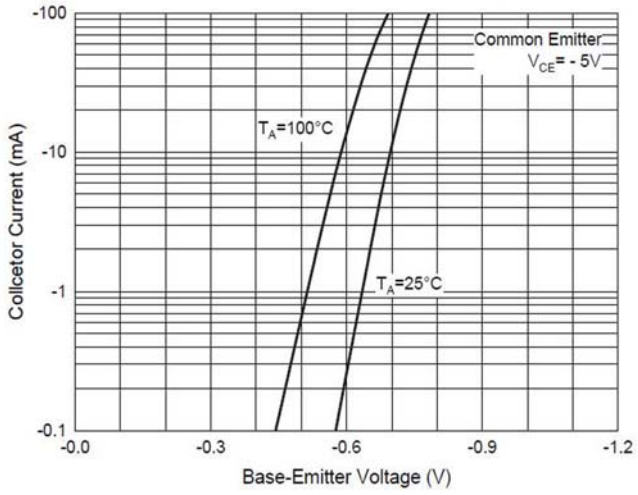
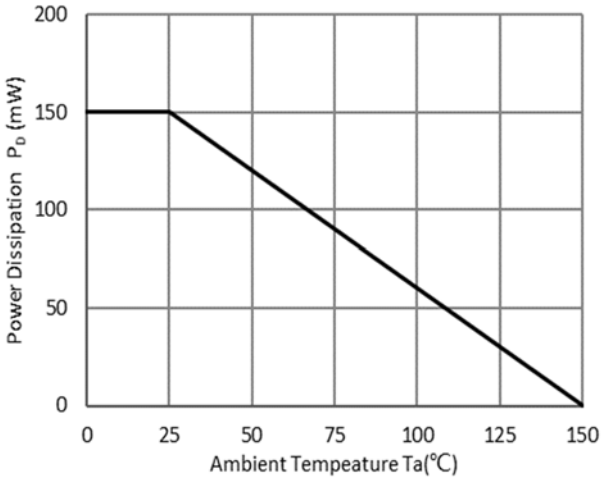


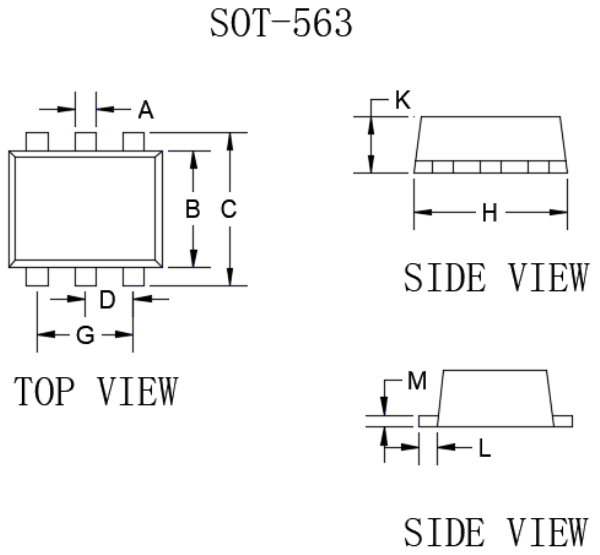
Fig 6：P_D-Ta Curve



■Ordering Information

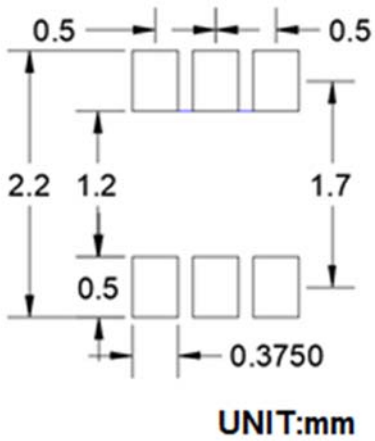
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
BC857BV	F2	Approximate 0.0035	3000	30000	120000	7” reel

■ Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MN	MAX
A	0.006	0.011	0.150	0.300
B	0.043	0.051	1.100	1.300
C	0.059	0.067	1.500	1.700
D	0.016	0.024	0.400	0.600
G	0.035	0.043	0.900	1.100
H	0.059	0.067	1.500	1.700
K	0.021	0.026	0.550	0.650
L	0.004	0.011	0.100	0.300
M	0.004	0.007	0.100	0.180

■ Suggested Pad Layout



UNIT:mm

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