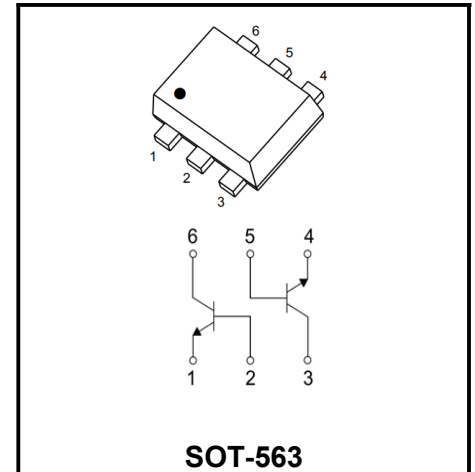


Plastic-Encapsulate Transistors

DUAL TRANSISTOR(NPN+NPN)

FEATURES

- ◆Epitaxial Die Construction
- ◆Complementary PNP Type Available (BC857BV)
- ◆Ultra-Small Surface Mount Package



SOT-563

Marking Code

BC847BV

K4V

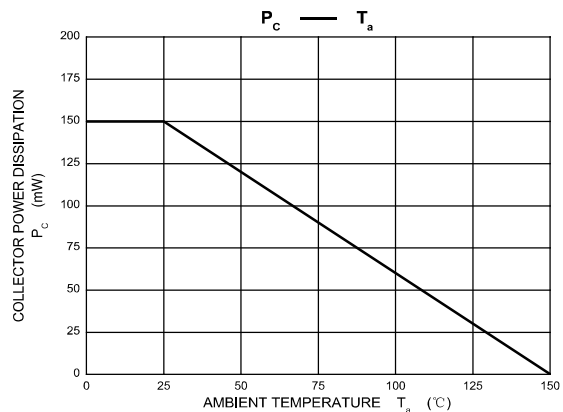
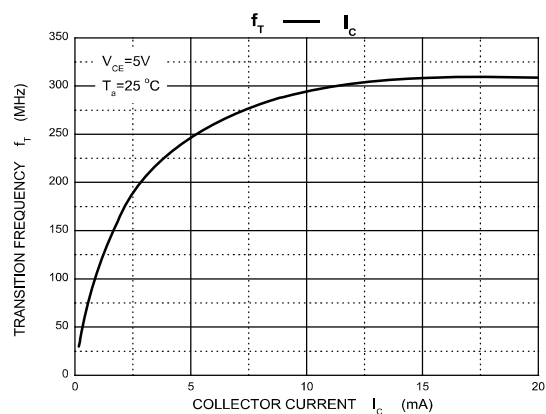
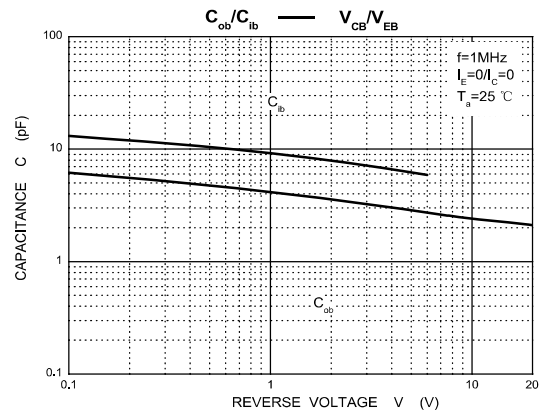
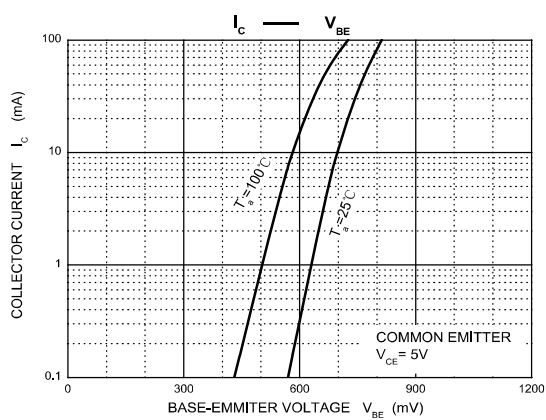
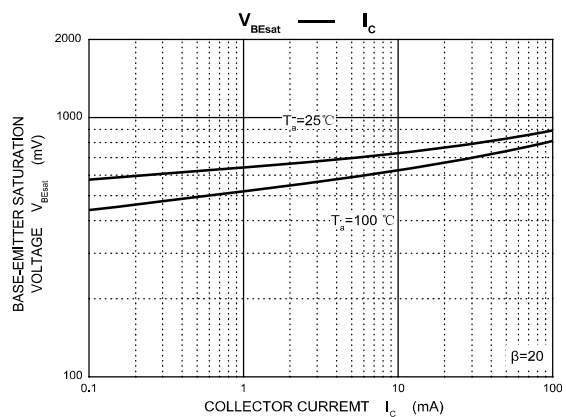
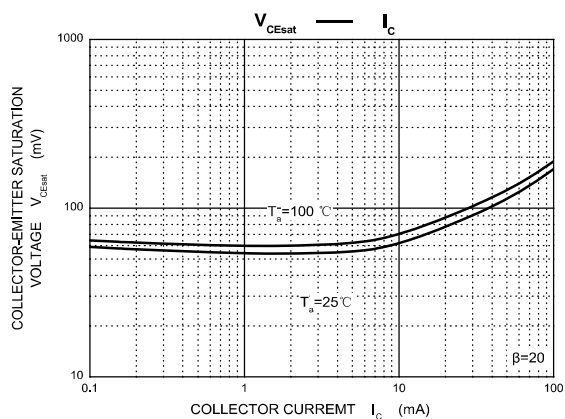
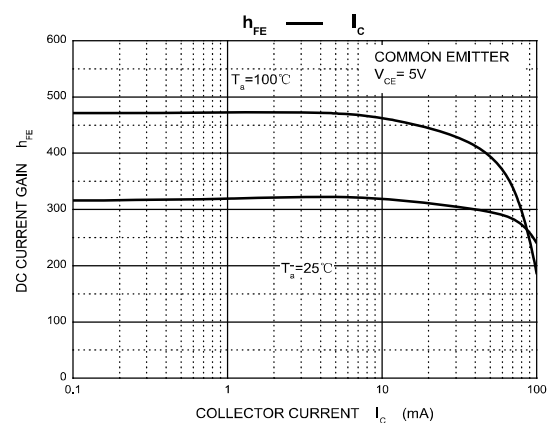
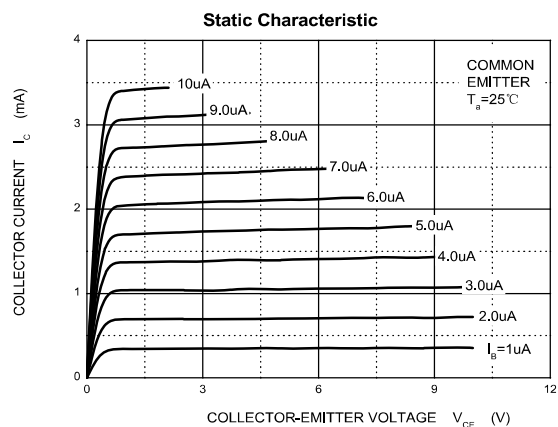
MAXIMUM RATINGS(Ta =25℃unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	45	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	0.1	A
P_C	Collector Power Dissipation	0.15	W
$R_{\theta JA}$	Thermal Resistance. Junction to Ambient Air	833	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55 ~+150	°C

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\mu A, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=30V, I_E=0$			15	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			100	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=5V, I_C=2mA$	200		450	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=0.5mA$ $I_C=100mA, I_B=5mA$			100 300	mV
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=10mA, I_B=0.5mA$ $I_C=100mA, I_B=5mA$		700 900		mV
Base-emitter voltage	V_{BE}	$V_{CE}=5V, I_C=2mA$ $V_{CE}=5V, I_C=10mA$	580	660	700 770	mV
Transition frequency	f_T	$V_{CE}=5V, I_C=10mA, f=100MHz$	100			MHz
Output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$			4.5	pF
Noise Figure	NF	$V_{CE}=5V, R_s=2K\Omega$, $f=1kHz, BW=200Hz$			10	dB

Typical Characteristics



Ordering information

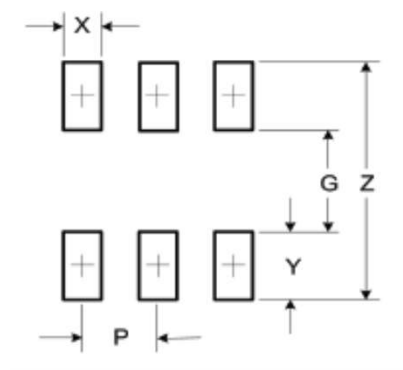
Package	Packing Description	Packing Quantity
SOT-563	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOT-563

Dim.	Millimeter(mm)		Inches	
	Min.	Max.	Min.	Max.
A	0.525	0.600	0.021	0.024
A1	-	0.050	-	0.002
e	0.450	0.550	0.018	0.022
c	0.090	0.160	0.004	0.006
D	1.500	1.700	0.059	0.067
b	0.170	0.270	0.007	0.011
E1	1.100	1.300	0.043	0.051
E	1.500	1.700	0.059	0.067
L	0.100	0.300	0.004	0.012
θ	7°		7°	

The recommended mounting pad size



Dim.	Millimeter(mm)
	TYP
Z	1.91
G	0.89
P	TYP0.51
X	0.30
Y	0.51

Disclaimer

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