



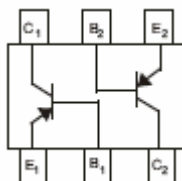
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-563 Plastic-Encapsulate Transistors

BC857BV DUAL TRANSISTOR (PNP)

FEATURES

- Epitaxial Die Construction
- Complementary NPN Types Available (BC847BV)
- Ultra-Small Surface Mount Package



SOT-563



Marking: K5V

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ 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	-5	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	$^{\circ}\text{C/W}$
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}, I_E=0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-1\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-30\text{V}, I_E=0$			-15	nA
DC current gain	h_{FE}	$V_{CE}=-5\text{V}, I_C=-2\text{mA}$	220		475	
Collector-emitter saturation voltage	$V_{CE(sat)(1)}$	$I_C=-10\text{mA}, I_B=-0.5\text{mA}$			-0.1	V
	$V_{CE(sat)(2)}$	$I_C=-100\text{mA}, I_B=-5\text{mA}$			-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)(1)}$	$I_C=-10\text{mA}, I_B=-0.5\text{mA}$		-0.7		V
	$V_{BE(sat)(2)}$	$I_C=-100\text{mA}, I_B=-5\text{mA}$		-0.9		V
Base-emitter voltage	$V_{BE(1)}$	$V_{CE}=-5\text{V}, I_C=-2\text{mA}$	-0.6		-0.75	V
	$V_{BE(2)}$	$V_{CE}=-5\text{V}, I_C=-10\text{mA}$			-0.82	V
Transition frequency	f_T	$V_{CE}=-5\text{V}, I_C=-10\text{mA}, f=100\text{MHz}$	100			MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$			4.5	pF
Noise figure	NF	$V_{CE}=-5\text{V}, I_C=-0.2\text{mA}, f=1\text{kHz}, R_s=2\text{K}\Omega, BW=200\text{Hz}$			10	dB

Typical Characteristics

BC857BV

