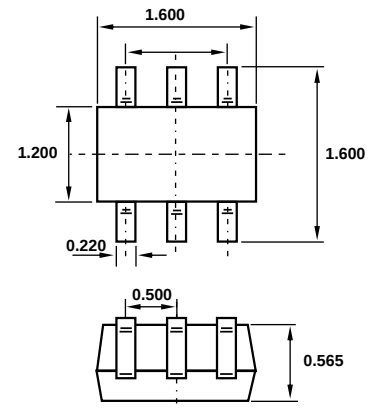


BC857BV

SOT-563 Dual Transistor (PNP)

SOT-563



Features

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

Marking: K5V

MAXIMUM RATINGS (T_A=25°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 _{θJA}	Thermal Resistance. Junction to Ambient Air	833	°C/W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55 to +150	°C

Dimensions in inches and (millimeters)

ELECTRICAL CHARACTERISTICS(T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-10μA, 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 =-1μA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-30V, I _E =0			-15	nA
DC current gain	h _{FE}	V _{CE} =-5V, I _C =-2mA	220		475	
Collector-emitter saturation voltage	V _{CE(sat)(1)}	I _C =-10mA, I _B =-0.5mA			-0.1	V
	V _{CE(sat)(2)}	I _C =-100mA, I _B =-5mA			-0.4	V
Base-emitter saturation voltage	V _{BE(sat)(1)}	I _C =-10mA, I _B =-0.5mA		-0.7		V
	V _{BE(sat)(2)}	I _C =-100mA, I _B =-5mA		-0.9		V
Base-emitter voltage	V _{BE(1)}	V _{CE} =-5V, I _C =-2mA	-0.6		-0.75	V
	V _{BE(2)}	V _{CE} =-5V, I _C =-10mA			-0.82	V
Transition frequency	f _T	V _{CE} =-5V, I _C =-10mA, f=100MHz	100			MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz			4.5	pF
Noise figure	NF	V _{CE} =-5V, I _C =-0.2mA, f=1kHz, R _s =2KΩ, BW=200Hz			10	dB

Typical Characteristics

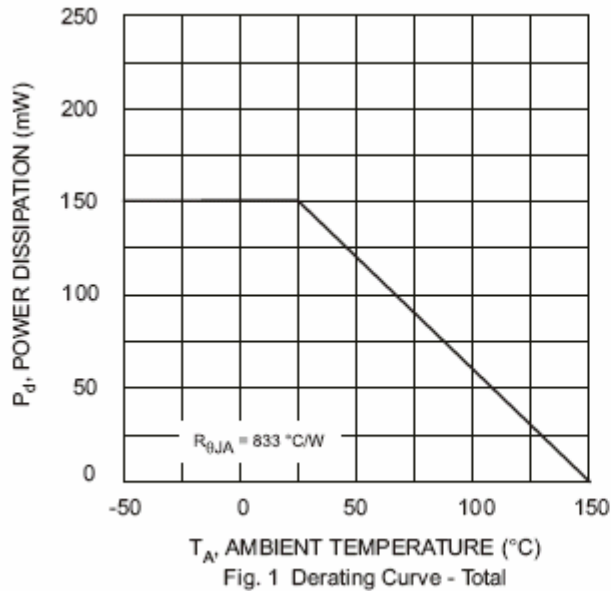


Fig. 1 Derating Curve - Total

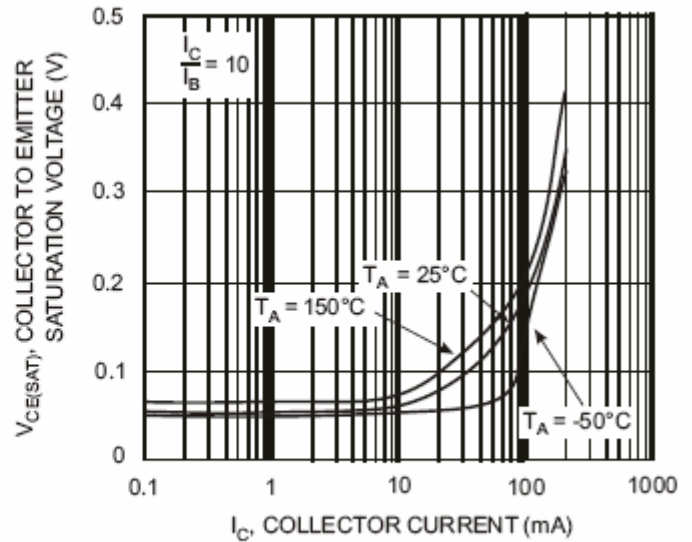


Fig. 2 Collector Emitter Saturation Voltage vs. Collector Current

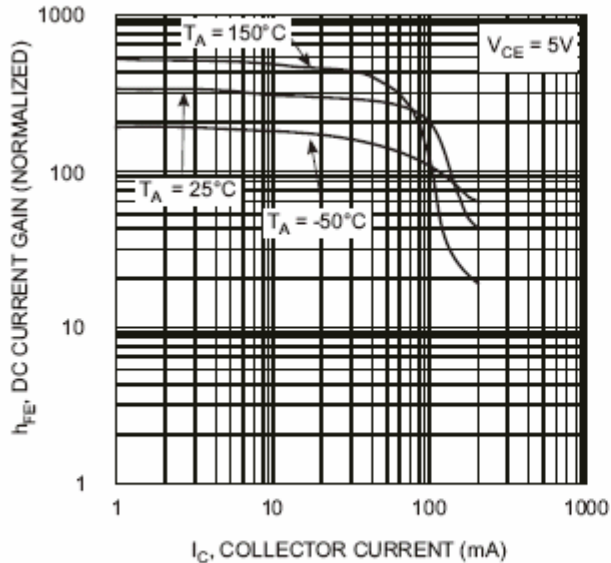


Fig. 3, DC Current Gain vs. Collector Current

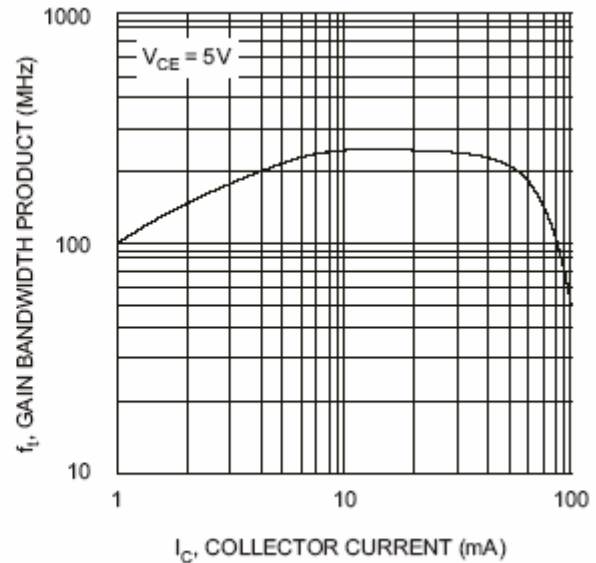


Fig. 4, Gain Bandwidth Product vs Collector Current