

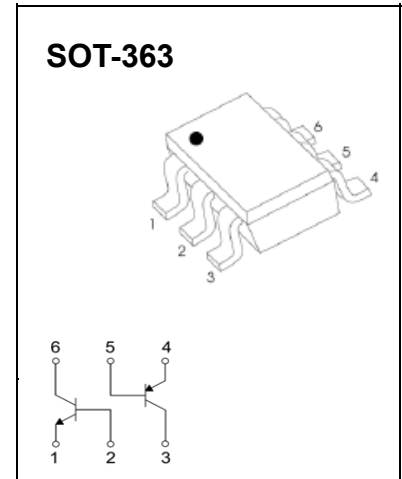
Plastic-Encapsulate Transistors

DUAL TRANSISTOR (NPN+PNP)

FEATURES

- Epitaxial Die Construction
- Two isolated NPN/PNP(BC846W+BC856W) Transistors in one package

MAKING: BB



MAXIMUM RATINGS TR1 ($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CB0}	Collector-Base Voltage	80	V
V_{CE0}	Collector-Emitter Voltage	65	V
V_{EB0}	Emitter-Base Voltage	6	V
I_C	Collector Current –Continuous	0.1	A
P_C	Collector Power Dissipation	200	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55-150	$^\circ\text{C}$

CHARACTERISTICS of TR1 (NPN Transistor) ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	65			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\mu\text{A}, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=30\text{V}, I_E=0$			15	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			15	nA
DC current gain	h_{FE}	$V_{CE}=5\text{V}, I_C=2\text{mA}$	200		450	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10\text{mA}, I_B=0.5\text{mA}$			0.25	V
	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=5\text{mA}$			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=10\text{mA}, I_B=0.5\text{mA}$		0.7		V
	$V_{BE(sat)}$	$I_C=100\text{mA}, I_B=5\text{mA}$		0.9		V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE}=5\text{V}, I_C=2\text{mA}$	0.58		0.7	V
	$V_{BE(on)}$	$V_{CE}=5\text{V}, I_C=10\text{mA}$			0.72	V
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$			6.0	pF
Transition frequency	f_T	$V_{CE}=5\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	100			MHz
Noise figure	NF	$V_{CE}=5\text{V}, I_C=0.2\text{mA}, f=1\text{kHz}, R_g=2\text{K}\Omega, \Delta f=200\text{Hz}$			10	dB

MAXIMUM RATINGS TR2 (T_a=25°C unless otherwise noted)

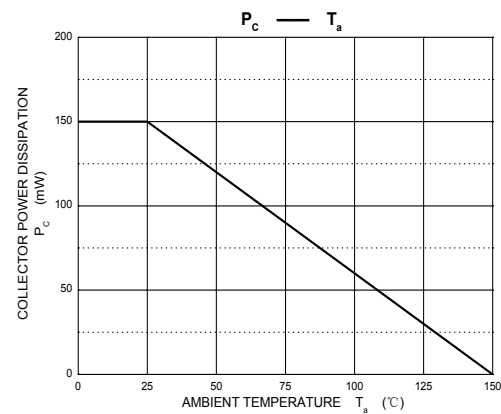
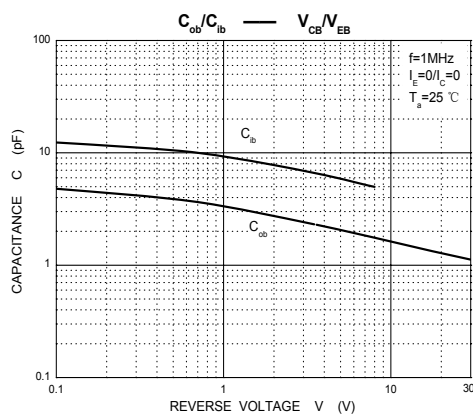
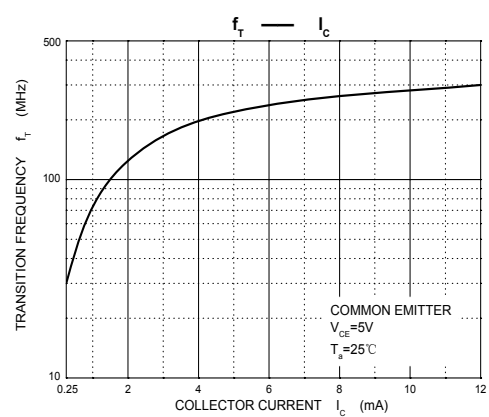
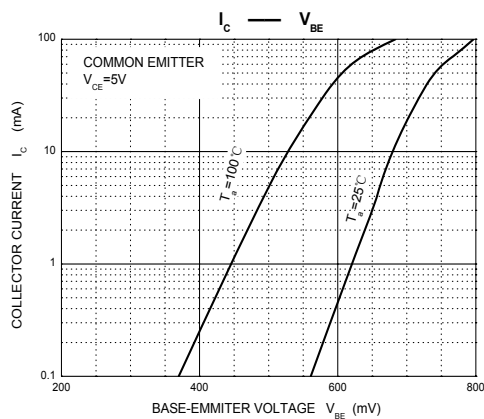
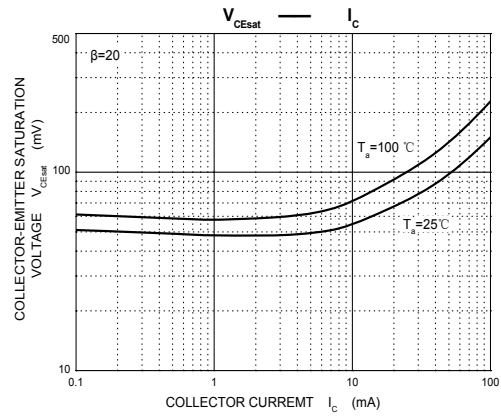
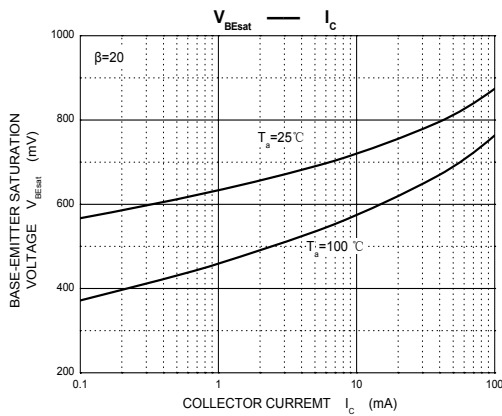
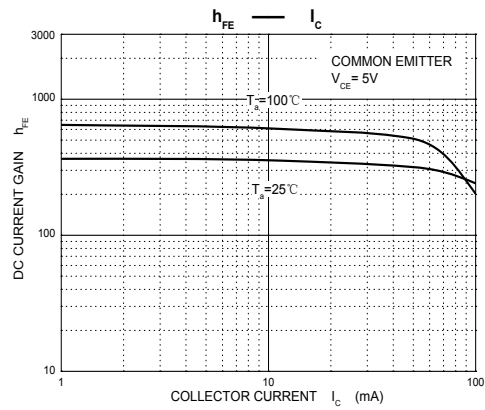
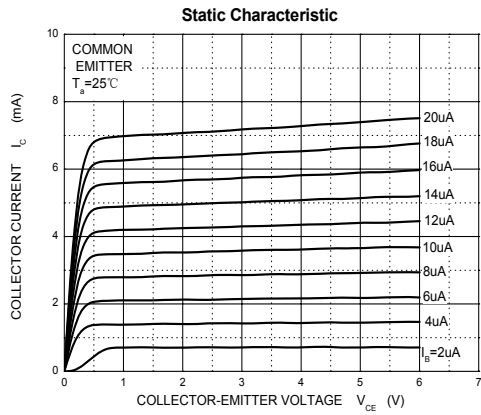
Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	-80	V
V _{CEO}	Collector-Emitter Voltage	-65	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _c	Collector Current –Continuous	-0.1	A
P _{C*}	Collector Power Dissipation	200	mW
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

CHARACTERISTICS of TR2 (PNP Transistor) (T_a=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	-80			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-10mA, I _B =0	-65			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
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0			-15	nA
DC current gain	h _{FE1}	V _{CE} =-5V, I _C =-2mA	220		475	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-10mA, I _B =-0.5mA			-0.3	V
	V _{CE(sat)}	I _C =-100mA, I _B =-5mA			-0.65	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-10mA, I _B =-0.5mA		-0.7		V
	V _{BE(sat)}	I _C =-100mA, I _B =-5mA			-0.95	V
Base-emitter voltage	V _{BE(on)}	V _{CE} =-5V, I _C =-2mA	-0.6		-0.75	V
	V _{BE(on)}	V _{CE} =-5V, I _C =-10mA			-0.82	V
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz			4.5	pF
Transition frequency	f _T	V _{CE} =-5V, I _C =-10mA, f=100MHz	100			MHz
Noise figure	NF	V _{CE} =-5V, I _c =-0.2mA, f=1kHz, R _g =2KΩ, Δf=200Hz			10	dB

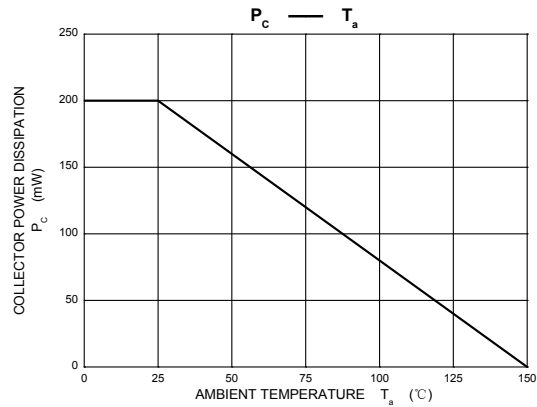
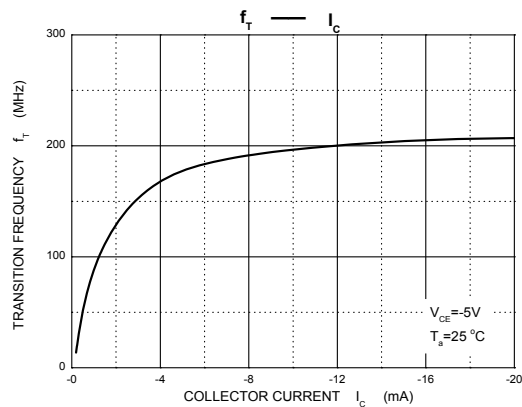
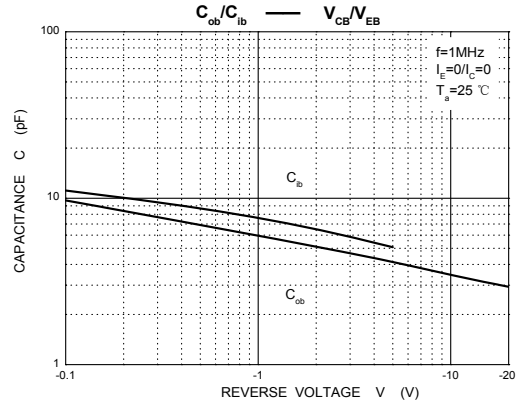
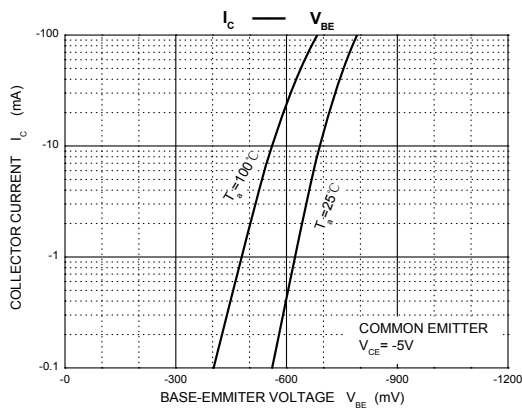
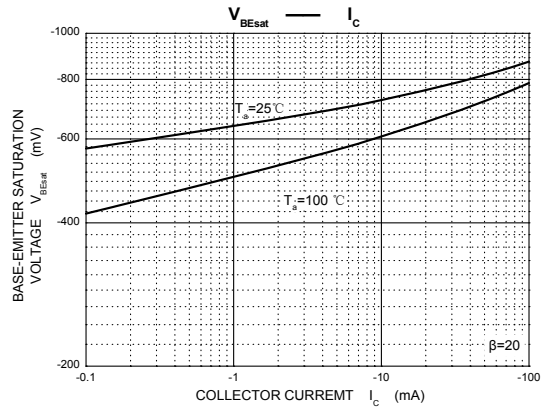
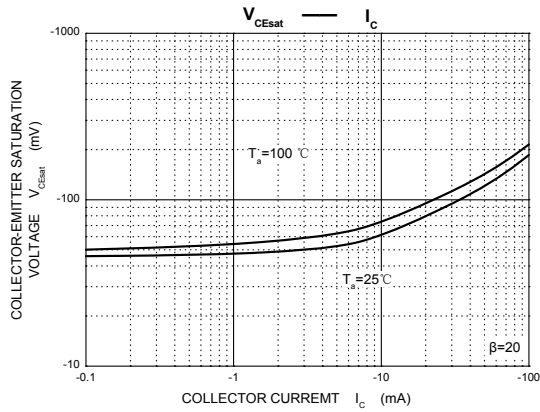
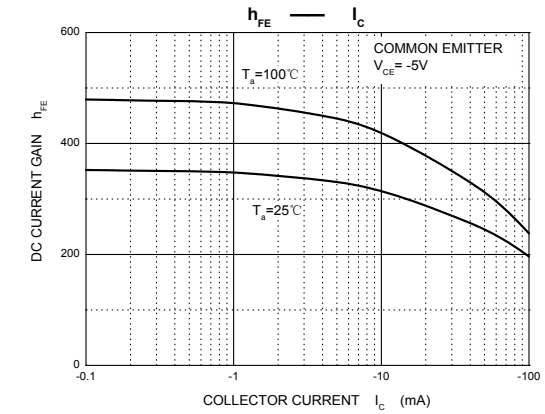
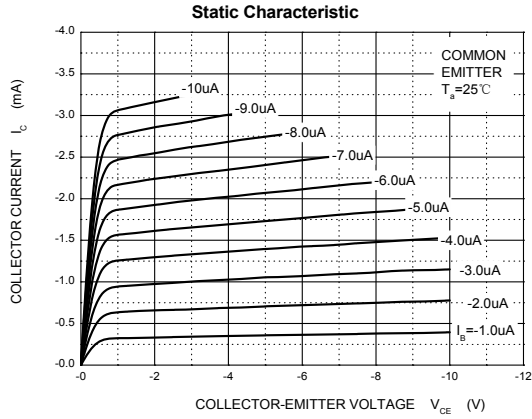
Typical Characteristics

BC846PN/TR1



Typical Characteristics

BC846PN/TR2



SOT-363-Package Outline Dimensions

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bipolar Transistors - BJT category](#):

Click to view products by [Hong Kong Chuangji manufacturer](#):

Other Similar products are found below :

[BC559C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [NJVMJD148T4G](#) [NTE16](#) [NTE195A](#) [IMX9T110](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [FMC5AT148](#) [2N2369ADCSM](#) [2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SC4618TLN](#) [CPH6501-TL-E](#) [MCH4021-TL-E](#) [US6T6TR](#) [BAX18/A52R](#) [BC556/112](#) [IMZ2AT108](#) [MMST8098T146](#) [UMX21NTR](#) [MCH6102-TL-E](#) [TTA1452B,S4X\(S](#) [2N3879](#) [NTE13](#) [NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#) [JANTX2N2920L](#) [JANTX2N3735](#) [JANSR2N2222AUB](#) [CMLT3946EG TR](#) [SNSS40600CF8T1G](#) [2N6987](#) [CMLT3906EG TR](#) [GRP-DATA-JANS2N2907AUB](#) [GRP-DATA-JANS2N2222AUA](#) [MMDT3946FL3-7](#) [2N4240](#) [JANS2N3019](#) [MSB30KH-13](#) [2N2221AUB](#) [2SD1815T-TL-E](#)