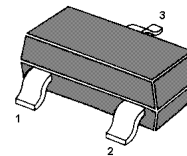


BC846LT1 ... BC850LT1

NPN Silicon Epitaxial Transistor

for switching and amplifier applications.

As complementary types the PNP transistors BC856LT1...BC860LT1 is recommended.



1. Base 2. Emitter 3. Collector

SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

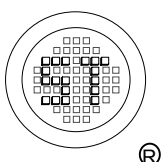
		Symbol	Value	Units
Collector Base Voltage	BC846	V_{CBO}	80	V
	BC847,BC850	V_{CBO}	50	V
	BC848,BC849	V_{CBO}	30	V
Collector Emitter Voltage	BC846	V_{CEO}	65	V
	BC847,BC850	V_{CEO}	45	V
	BC848,BC849	V_{CEO}	30	V
Emitter Base Voltage	BC846,BC847	V_{EBO}	6	V
	BC848,BC849,BC850	V_{EBO}	5	V
Collector Current (DC)		I_C	100	mA
Power Dissipation		P_{tot}	310	mW
Junction Temperature		T_J	150	$^\circ\text{C}$
Storage Temperature Range		T_S	-65 + to 150	$^\circ\text{C}$

G S P FORM A IS AVAILABLE

Sales Agent: Sider Electronic Industries Ltd. □

Tel: 852-23892522 Fax: 852-23574546 □

Email: info@sider.com.hk URL: www.sider.com.hk □



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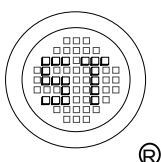
BC846LT1 ... BC850LT1

Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Units
DC Current Gain					
at $V_{CE}=5V$, $I_C=2mA$	A				
	B				
	C				
Collector Emitter Saturation Voltage					
at $I_C=10mA$, $I_B=0.5mA$	V_{CEsat}	-	90	250	mV
at $I_C=100mA$, $I_B=5mA$	V_{CEsat}	-	200	600	mV
Base Emitter On Voltage					
at $I_C=2mA$, $V_{CE}=5V$	$V_{BE(on)}$	580	660	700	mV
at $I_C=10mA$, $V_{CE}=5V$	$V_{BE(on)}$	-	-	720	mV
Base Emitter Saturation Voltage					
at $I_C=10mA$, $I_B=0.5mA$	V_{BEsat}	-	700	-	mV
at $I_C=100mA$, $I_B=5mA$	V_{BEsat}	-	900	-	mV
Collector Cutoff Current					
at $V_{CB}=30V$	I_{CBO}	-	-	15	nA
Current Gain Bandwidth Product					
at $V_{CE}=5V$, $I_C=10mA$, $f=100MHz$	f_T	-	300	-	MHz
Output Capacitance					
at $V_{CB}=10V$, $f=1MHz$	C_{ob}	-	3.5	6	pF
Input Capacitance					
at $V_{EB}=0.5V$, $f=1MHz$	C_{ib}	-	9	-	pF
Noise Figure					
at $I_C=200\mu A$, $V_{CE}=5V$, BC846, BC847, BC848	NF	-	2	10	dB
$R_G=2k\Omega$, $f=1kHz$ BC849, BC850	NF	-	1.2	4	dB
at $I_C=200\mu A$, $V_{CE}=5V$, BC849	NF	-	1.4	4	dB
$R_G=2k\Omega$, $f=30\sim 15000Hz$ BC850	NF	-	1.4	3	dB

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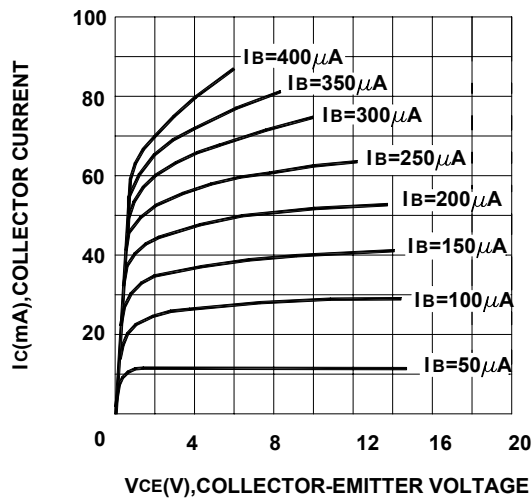
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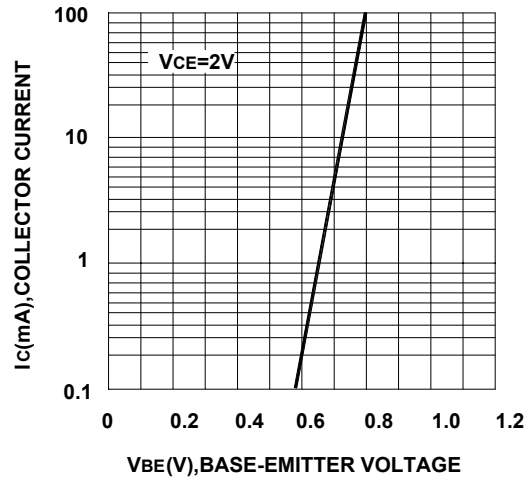


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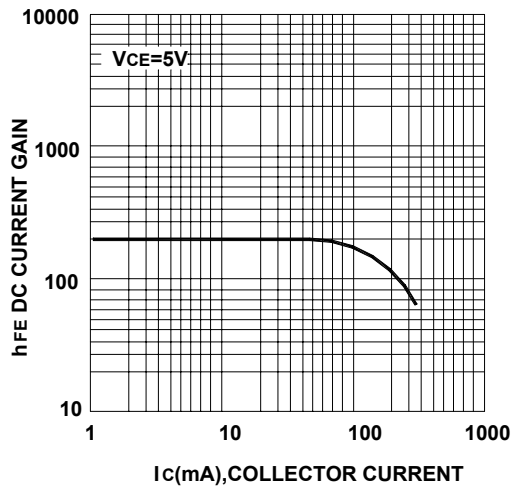
STATIC CHARACTERISTIC



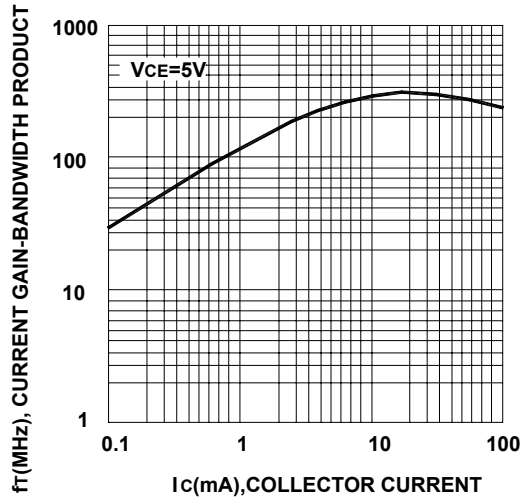
BASE-EMITTER ON VOLTAGE



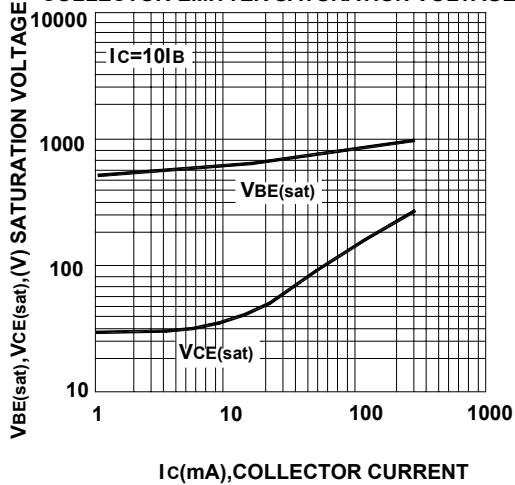
DC CURRENT GAIN



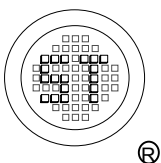
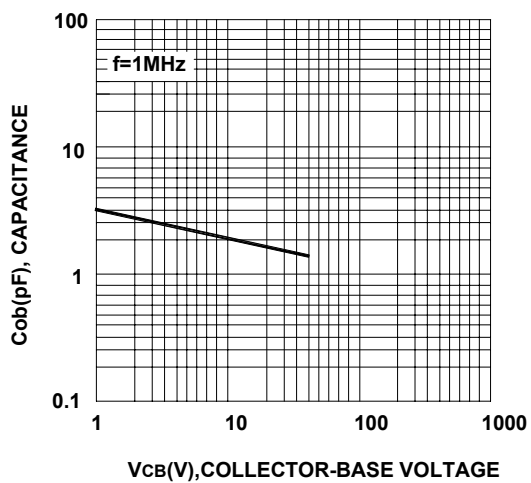
CURRENT GAIN BANDWIDTH PRODUCT



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR OUTPUT CAPACITANCE



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