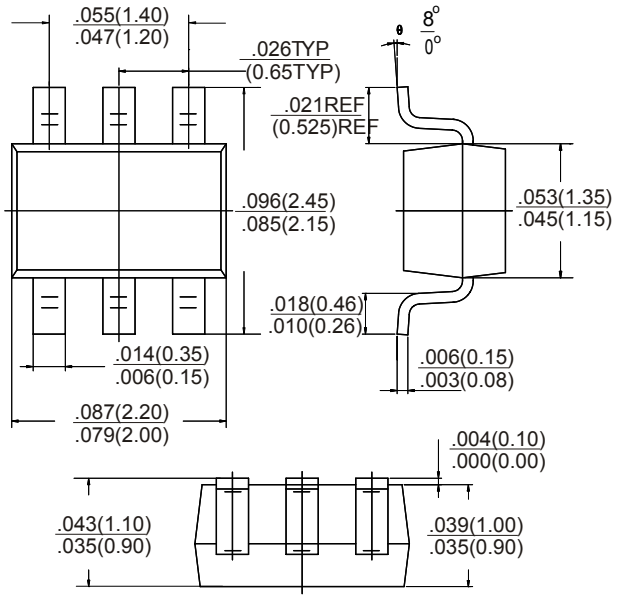
Elektronische Bauelemente

BC847S

NPN Silicon
Multi-Chip Transistor

RoHS Compliant Product

SOT-363



Dimensions in inches and (millimeters)

* Features

Power dissipation

P_{CM} : 0.3 W (Tamp.= 25°C)

Collector current

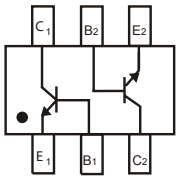
I_{CM} : 0.2 A

Collector-base voltage

$V_{(BR)CBO}$: 50 V

Operating & Storage junction Temperature

T_j, T_{stg} : -55°C~ +150°C

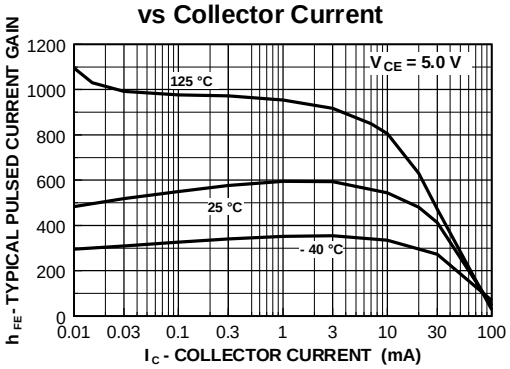


Electrical Characteristics(Tamb=25°C unless otherwise specified)

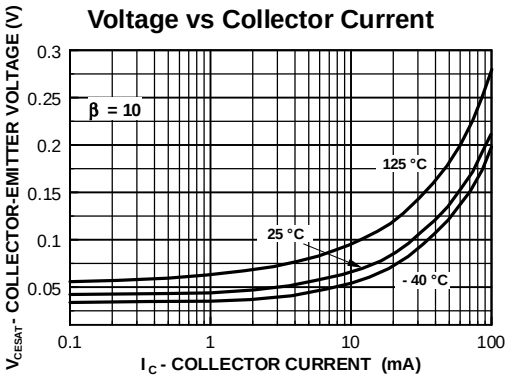
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic=10μA, I_E=0	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	Ic=10mA, I_B=0	45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA, I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=30V, I_E=0			15	nA
DC current gain	$h_{FE(1)}$	V_{CE}=5V, I_C=2mA	110		630	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10mA, I_B=0.5mA			0.25	V
	$V_{CE(sat)(2)}$	I_C=100mA, I_B=5mA			0.65	V
Base-emitter voltage	V_{BE}	V_{CE}=5V, I_C=2mA			0.7	V
	$V_{BE(2)}$	V_{CE}=5V, I_C=10mA			0.77	V
Transition frequency	f_T	V_{CE}=5V, I_C=20mA , f=100MHz		200		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz		2		pF

Typical Characteristics

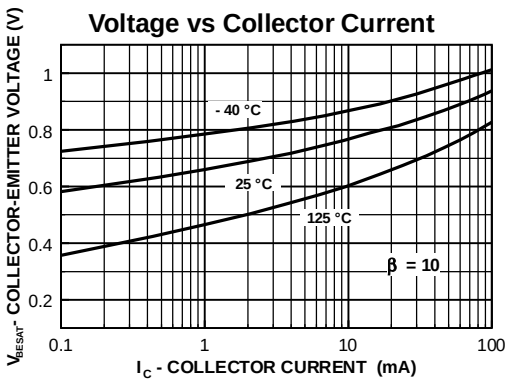
Typical Pulsed Current Gain vs Collector Current



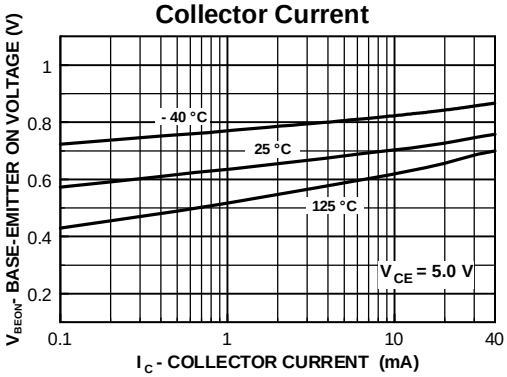
Collector-Emitter Saturation Voltage vs Collector Current



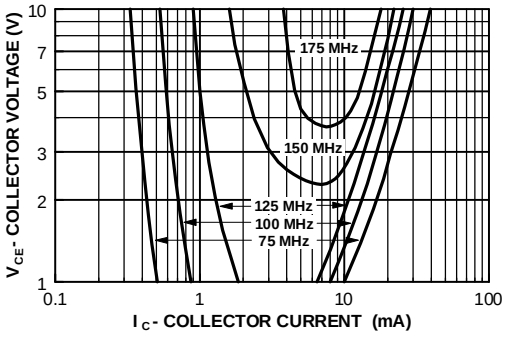
Base-Emitter Saturation Voltage vs Collector Current



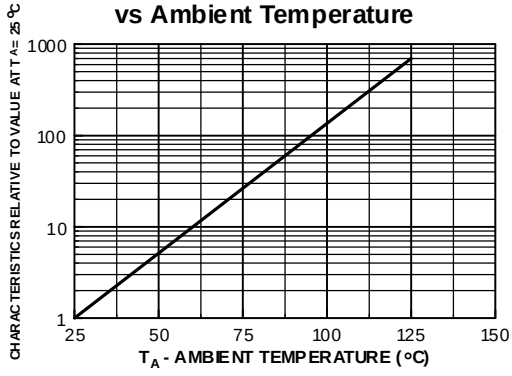
Base-Emitter ON Voltage vs Collector Current



Contours of Constant Gain Bandwidth Product (f_T)



Normalized Collector-Cutoff Current vs Ambient Temperature



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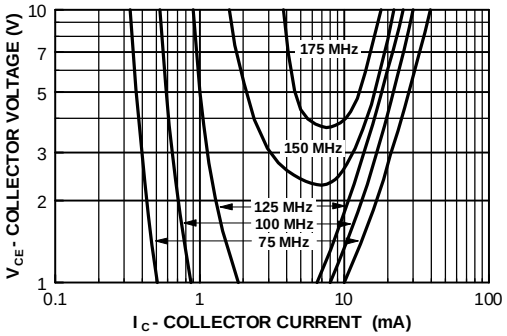

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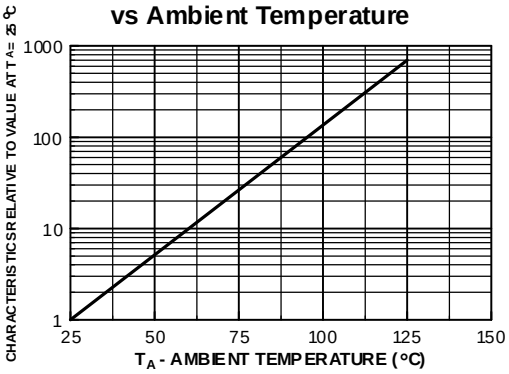
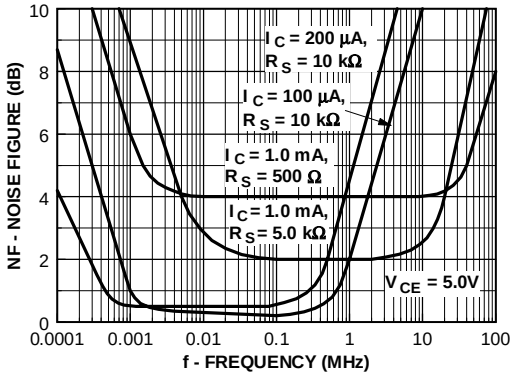
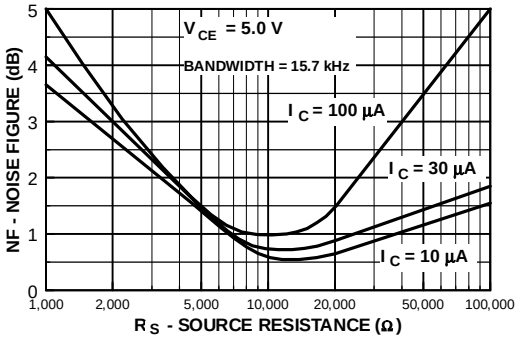


Noise Figure vs Frequency



Wideband Noise Frequency vs Source Resistance



Power Dissipation vs Ambient Temperature