



Micro Commercial Components



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BC847AT, BT, CT

Features

- Halogen free available upon request by adding suffix "-HF"
Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
Epitaxial Die Construction
Complementary PNP Type Available (BC857AT,BT,CT)
Ultra-Small Surface Mount Package
Epoxy meets UL 94 V-0 flammability rating
Moisure Sensitivity Level 1

Maximum Data

- Case: SOT-523
Terminals: Solderable per MIL-STD-202, Method 208
Polarity: See Diagram
Marking:BC847AT--1E,BC847BT--1F,BC847CT-1G.

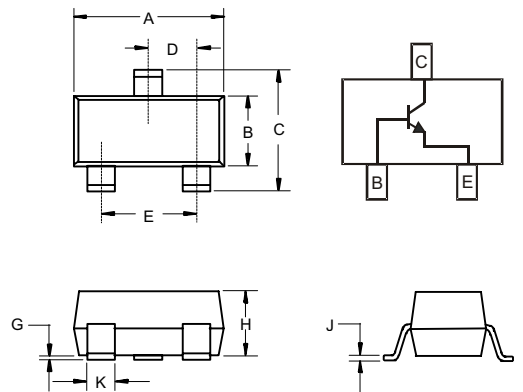
Maximum Ratings @ 25°C Unless Otherwise Specified

Table with 4 columns: Symbol, Parameter, Value, Units. Rows include OFF CHARACTERISTICS, V(BR)CEO, V(BR)CBO, V(BR)EBO, Ic, Pd, RthetaJA, Tj, Tstg.

Note: 1. Device mounted on FR-4 PCB with recommended pad layout

NPN Surface Mount Small Signal Transistor 150mW

SOT-523



DIMENSIONS table with columns for DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE. Rows A through K.

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units	Test Condition
<b>OFF CHARACTERISTICS</b>						
$h_{FE}$	DC Current Gain (Note 2)					$V_{CE}=5.0V, I_C=2.0mA$
	Current Gain A	110	---	222	---	
	B	200	290	450	---	
	C	420	520	800	---	
$V_{CE(SAT)}$	Collector-Emitter Saturation Voltage (Note 2)	---	---	250 600	mV	$I_C=10mA, I_B=0.5mA$ $I_C=100mA, I_B=5.0mA$
$V_{BE(SAT)}$	Base-Emitter Saturation Voltage (Note 2)	---	700 900	---	mV	$I_C=10mA, I_B=0.5mA$ $I_C=100mA, I_B=5.0mA$
$V_{BE(ON)}$	Base-Emitter Voltage (Note 2)	580 ---	660 ---	700 770	mV	$V_{CE}=5.0V, I_C=2.0mA$ $V_{CE}=5.0V, I_C=10mA$
$I_{CBO}$ $I_{CBO}$	Collector-Cutoff Current (Note 2)	---	---	15	nA	$V_{CB}=30V, I_E=0$
		---	---	5.0	$\mu A$	$V_{CB}=30V, T_J=125^\circ C$
$f_T$	Gain Bandwidth Product	100	---	---	MHz	$V_{CE}=5.0V, I_C=10mA,$ $f=100MHz$
$C_{CBO}$	Collector-Base Capacitance	---	---	4.5	pF	$V_{CB}=10V, f=1.0MHz$
NF	Noise Figure	---	---	10	dB	$V_{CE}=5V, R_S=2.0Kohm,$ $f=1.0MHz, BW=200HZ$
		BC847BT	---	---		
	BC847CT	---	---	4.0		

Note: 2. Short duration pulse test used to minimize self-heating effect.



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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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