



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.

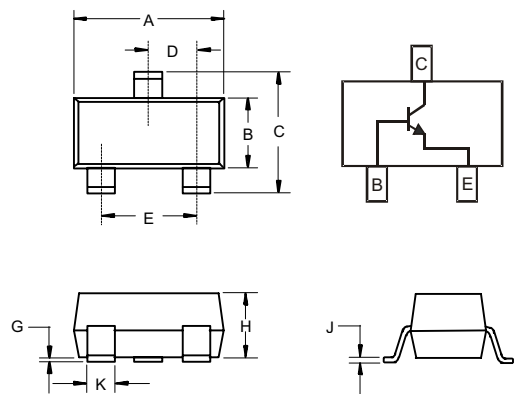
Maximum Ratings @ 25°C Unless Otherwise Specified

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
OFF CHARACTERISTICS						
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 _{CB0}	Collector-Cutoff Current (Note 2)	---	---	15	nA	V _{CB} =30V, I _E =0 V _{CB} =30V, T _J =125°C
I _{CBO}		---	---	5.0	μA	
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	BC847BT	---	---	10	V _{CE} =5V, R _S =2.0Kohm, f=1.0MHz, BW=200HZ
		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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