



BC847BS

NPN EPITAXIAL SILICON TRANSISTOR

NPN GENERAL PURPOSE AMPLIFIER

DESCRIPTION

The UTC **BC847BS** is a dual NPN transistors; it uses UTC's advanced technology to provide customers high DC current gain, low power dissipation and low collector-emitter saturation voltage.

The UTC **BC847BS** is suitable for a high gain, low noise and general purpose amplifier.

FEATURES

- * Low saturation voltage
- * High DC current gain

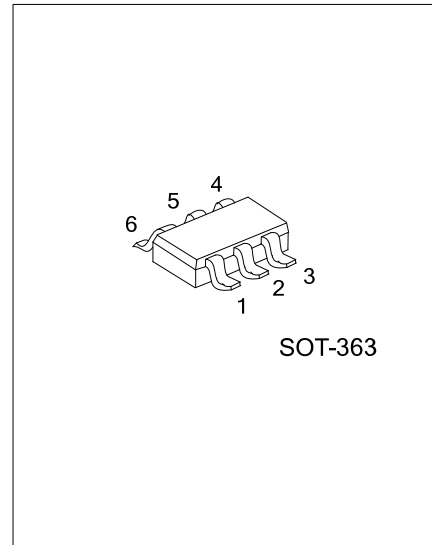
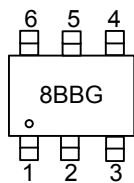
ORDERING INFORMATION

Ordering Number	Package	Pin Assignment						Packing
		1	2	3	4	5	6	
BC847BSG-AL6-R	SOT-363	E1	B1	C2	E2	B2	C1	Tape Reel

Note: Pin Assignment: E: Emitter B: Base C: Collector

<p>BC847BSG-AL6-R</p> <ul style="list-style-type: none"> (1)Packing Type (2)Package Type (3)Green Package 	<ul style="list-style-type: none"> (1) R: Tape Reel (2) AL6: SOT-363 (3) G: Halogen Free and Lead Free
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MARKING





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■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise noted)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V _{CES}	50	V
Collector-Emitter Voltage	V _{CEO}	45	V
Emitter-Base Voltage	V _{EBO}	6.0	V
Continuous Collector Current	I _C	100	mA
Power Dissipation	P _D	325	mW
Derate above 25°C		2.8	mW/°C
Junction Temperature	T _J	-55~+150	°C
Storage Temperature Range	T _{STG}	-55~+150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ _{JA}	357	°C/W

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CES}	I _C =10μA, I _E =0	50			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C =10mA, I _B =0	45			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E =10μA, I _C =0	6.0			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =30V			15	nA
		V _{CB} =30V, T _A =150°C			5.0	μA
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =10mA, I _B =0.5mA			0.25	V
		I _C =100mA, I _B =5.0mA			0.6	V
Base-Emitter Turn-On Voltage	V _{BE(on)}	I _C =2.0mA, V _{CE} =5.0V	0.58		0.70	V
		I _C =10mA, V _{CE} =5.0V			0.77	V
DC Current Gain	h _{FE}	I _C =2.0mA, V _{CE} =5.0V	200		450	
Transition Frequency	f _T	I _C =10mA, V _{CE} =5.0V, f=100MHz	100			MHz
Output Capacitance	C _{obo}	V _{CB} =10V, f=1.0MHz			4.5	pF
Noise Figure	NF	I _C =0.2mA, V _{CE} =5.0V, R _S =2.0kΩ, f=1.0kHz, BW=200Hz			10	dB

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