# UTC UNISONIC TECHNOLOGIES CO., LTD

# BC857BS

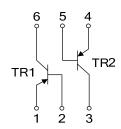
## PNP SILICON TRANSISTOR

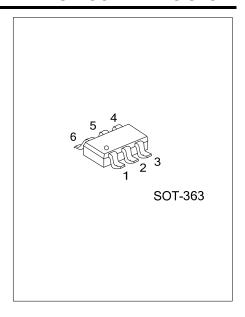
# **SWITCHING AND AMPLIFIER APPLICATIONS**

#### **FEATURES**

\*Suitable for automatic insertion in thick and thin-film circuits \*Complement to BC847BS

#### **EQUIVALENT CIRCUIT**

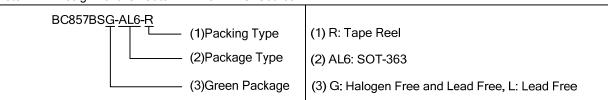




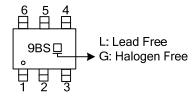
#### ORDERING INFORMATION

	Ordering Number		Dookogo	Pin Assignment					Dooking	
	Lead Free	Halogen Free	Package	1	2	3	4	5	6	Packing
	BC857BSL-AL6-R	BC857BSG-AL6-R	SOT-363	E1	B1	C2	E2	B2	C1	Tape Reel

Pin Assignment: G: Gate D: Drain Note:



# **MARKING**



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### ■ **ABSOLUTE MAXIMUM RATINGS** (T<sub>A</sub>=25°C, unless otherwise specified)

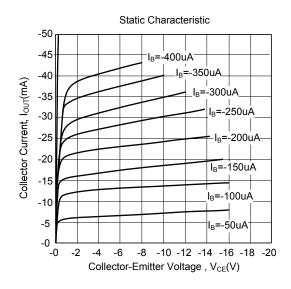
PARAMETER	SYMBOL	RATINGS	UNIT	
Collector-Base Voltage	$V_{CBO}$	-50	V	
Collector-Emitter Voltage	$V_{CEO}$	-45	V	
Emitter-Base Voltage	$V_{EBO}$	-5	V	
Collector Dissipation	$P_{D}$	200	mW	
Collector Current (DC)	Ic	-100	mA	
Junction Temperature	$T_J$	+150	ç	
Storage Temperature	T <sub>STG</sub>	-40 ~ +150	ç	

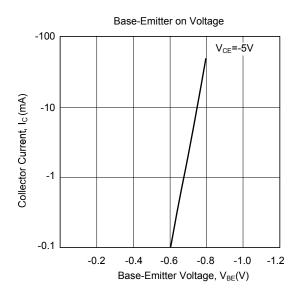
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

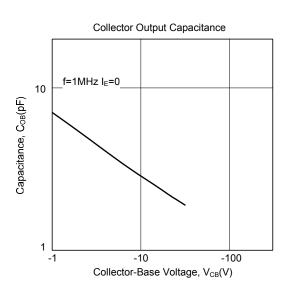
# ■ **ELECTRICAL CHARACTERISTICS** (T<sub>A</sub>=25°C, unless otherwise specified)

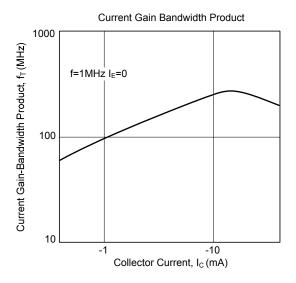
PARAMETER	ER SYMBOL TEST CONDITIONS		MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I <sub>CBO</sub>	$V_{CB}$ =-30V, $I_{E}$ =0			-15	nA
DC Current Gain	h <sub>FE</sub>	$V_{CE}$ =-5V, $I_{C}$ =-2mA			450	
Collector-Emitter Saturation Voltage	VCE(CAT)	I <sub>C</sub> =-10mA,I <sub>B</sub> =-0.5mA			-100	mV
Collector-Efflitter Saturation voltage		I <sub>C</sub> =-100mA,I <sub>B</sub> =-5mA			-400	mV
Dago Emitter Seturation Voltage	V <sub>BE(SAT)</sub>	I <sub>C</sub> =-10mA,I <sub>B</sub> =-0.5mA		-700		mV
Base-Emitter Saturation Voltage		I <sub>C</sub> =-100mA,I <sub>B</sub> =-5mA		-900		mV
Dago Emittor On Voltago	VPE(ON)	$V_{CE}$ =-5 $V$ , $I_{C}$ =-2 $mA$	-600	-660	-750	mV
Base-Emitter On Voltage		$V_{CE}$ =-5 $V$ , $I_{C}$ =-10 $mA$			-800	mV
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =-5V,I <sub>C</sub> =-10mA, f=100MHz		150		MHz
Output Capacitance	Cob	V <sub>CB</sub> =-10V,I <sub>E</sub> =0,f=1MHz			6	pF
Noise Figure	NF	$V_{CE}$ =-5V, $I_{C}$ =-200 $\mu$ A, f=1KHz, $R_{G}$ =2K $\Omega$		2	10	dB

#### **■ TYPICAL CHARACTERISTICS**









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