



BC856AS

Preliminary

DUAL TRANSISTOR

DUAL PNP SURFACE MOUNT SMALL SIGNAL TRANSISTOR

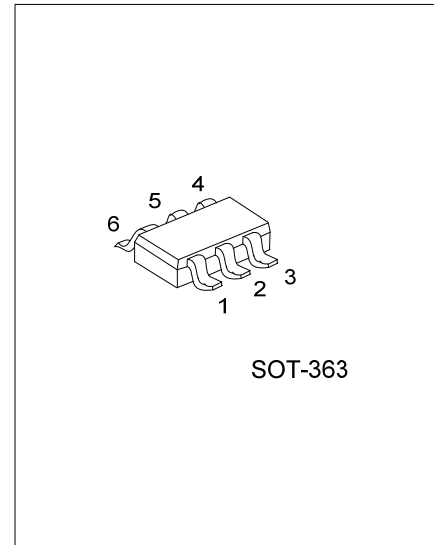
DESCRIPTION

The UTC **BC856AS** is a dual PNP surface mount small signal transistor, it uses UTC's advanced technology to provide customers with high DC current gain, etc.

The UTC **BC856AS** is suitable for switching and AF amplifier applications.

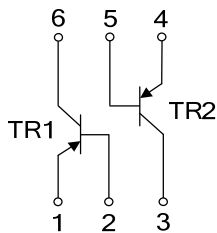
FEATURES

* High DC current gain



SOT-363

EQUIVALENT CIRCUIT



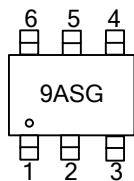
ORDERING INFORMATION

Ordering Number	Package	Pin Assignment						Packing
		1	2	3	4	5	6	
BC856ASG-AL6-R	SOT-363	E1	B1	C2	E2	B2	C1	Tape Reel

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

<p>BC856ASG-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
---	---

MARKING



■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-65	V
Emitter-Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-100	mA
Peak Collector Current	I_{CM}	-200	mA
Peak Emitter Current	I_{EM}	-200	mA
Power Dissipation	P_D	200	mW
Operating Temperature Range	T_J	-65~+150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-65~+150	$^\circ\text{C}$

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}	625	$^\circ\text{C/W}$

Note: Device mounted on FR-4 PCB minimum land pad.

■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_B=0$	-80			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	-65			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1\mu\text{A}, I_C=0$	-5			V
ON CHARACTERISTICS						
DC Current Gain	h_{FE}	$V_{CE}=-5.0\text{V}, I_C=-2.0\text{mA}$	125	180	250	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-10\text{mA}, I_B=-0.5\text{mA}$		-75	-300	mV
		$I_C=-100\text{mA}, I_B=-5.0\text{mA}$		-250	-650	mV
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=-10\text{mA}, I_B=-0.5\text{mA}$		-700		mV
		$I_C=-100\text{mA}, I_B=-5.0\text{mA}$		-850		mV
Base-Emitter Voltage	$V_{BE(ON)}$	$V_{CE}=-5.0\text{V}, I_C=-2.0\text{mA}$	-600	-650	-750	mV
		$V_{CE}=-5.0\text{V}, I_C=-10\text{mA}$			-820	mV
SMALL SIGNAL CHARACTERISTICS						
Collector-Cutoff Current	I_{CES}	$V_{CE}=-80\text{V}$			-15	nA
		$V_{CB}=-30\text{V}$			-15	nA
		$V_{CB}=-30\text{V}, T_A=150^\circ\text{C}$			-4.0	μA
Gain Bandwidth Product	f_T	$V_{CE}=-5.0\text{V}, I_C=-10\text{mA}, f=100\text{MHz}$	100			MHz
Collector-Base Capacitance	C_{CB}	$V_{CB}=-10\text{V}, f=1.0\text{MHz}$		3		pF

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

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.