



BC856AS

Preliminary

DUAL TRANSISTOR

DUAL PNP SURFACE MOUNT SMALL SIGNAL TRANSISTOR

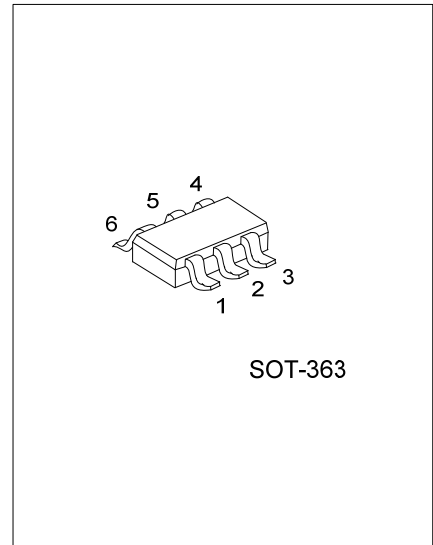
DESCRIPTION

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.

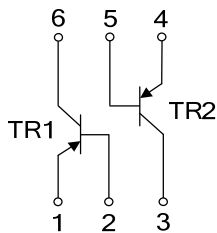
FEATURES

* High DC current gain



SOT-363

EQUIVALENT CIRCUIT



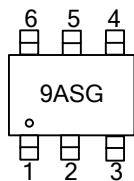
ORDERING INFORMATION

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
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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
	I_{CBO}	$V_{CB}=-30\text{V}, T_A=150^\circ\text{C}$			-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.

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