



2SB936

Preliminary

PNP EPITAXIAL SILICON TRANSISTOR

SILICON PNP EPITAXIAL PLANAR TYPE

DESCRIPTION

The UTC **2SB936** is a silicon PNP epitaxial planar type, it uses UTC's advanced technology to provide the customers with high DC current gain, low collector to emitter saturation voltage and high switch speed, etc.

The UTC **2SB936** is suitable for small electronic equipment and printed circuit board, etc.

FEATURES

- * High DC current gain
- * Low collector to emitter saturation voltage
- * High switch speed

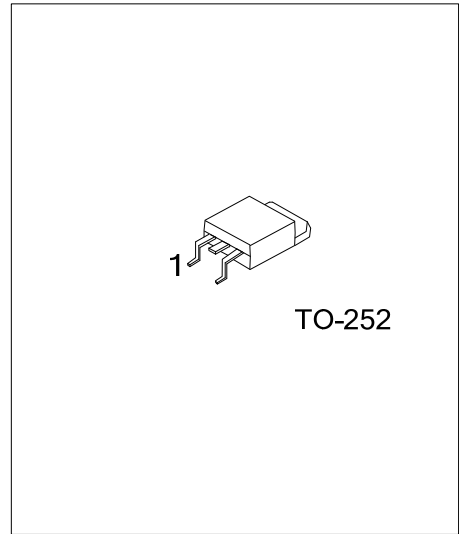
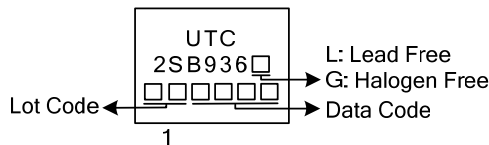
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SB936L-TN3-R	2SB936G-TN3-R	TO-252	B	C	E	Tape Reel

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

<p>2SB936L-TN3-T</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) R: Tape Reel</p> <p>(2) TN3: TO-252</p> <p>(3) L: Lead Free, G: Halogen Free and Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS ($T_C=25^\circ\text{C}$)

PARAMETER	SYMBOL	RATINGS	UNIT	
Collector-Base Voltage	V_{CBO}	-40	V	
Collector-Emitter Voltage	V_{CEO}	-20	V	
Emitter-Base Voltage	V_{EBO}	-5	V	
Collector Current	I_C	-10	A	
Peak Collector Current	I_{CP}	-20	A	
Collector Power Dissipation	P_C	$T_C=25^\circ\text{C}$	40	W
		$T_A=25^\circ\text{C}$	1.3	W
Junction Temperature	T_J	150	$^\circ\text{C}$	
Storage Temperature	T_{STG}	-55 ~ +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.

■ ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=-10\text{mA}$, $I_E=0$	-40			V
Collector-Emitter Voltage	BV_{CEO}	$I_C=-10\text{mA}$, $I_B=0$	-20			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_C=-10\text{mA}$, $I_C=0$	-5			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-40\text{V}$, $I_E=0$			-50	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-5\text{V}$, $I_C=0$			-50	μA
DC Current Gain	h_{FE1}	$V_{CE}=-2\text{V}$, $I_C=-0.1\text{A}$	45			
	h_{FE2}	$V_{CE}=-2\text{V}$, $I_C=-3\text{A}$	90			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-10\text{A}$, $I_B=-0.33\text{A}$			-0.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-10\text{A}$, $I_B=-0.33\text{A}$			-1.5	V
Transition Frequency	f_T	$V_{CE}=-10\text{V}$, $f=10\text{MHz}$, $I_C=-0.5\text{A}$		100		MHz
Output Capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $f=1\text{MHz}$, $I_E=0$		400		pF
Turn-On Time	t_{on}	$I_C=-3\text{A}$, $I_{B1}=-0.1\text{A}$, $I_{B2}=0.1\text{A}$		0.1		μs
Storage Time	t_s			0.5		μs
Fall Time	t_f			0.1		μs

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