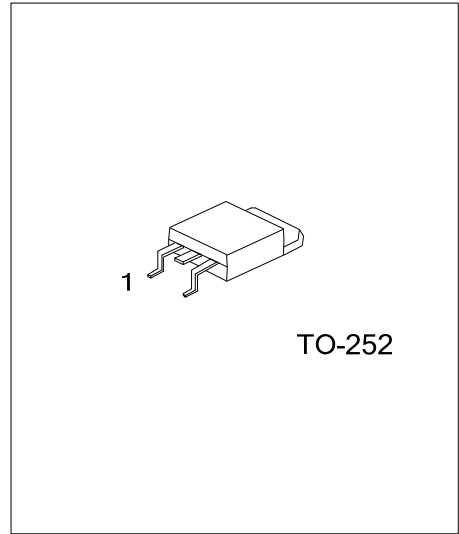




## STD888

## PNP EPITAXIAL SILICON TRANSISTOR

HIGH CURRENT,  
HIGH PERFORMANCE,  
LOW VOLTAGE PNP  
TRANSISTOR



### DESCRIPTION

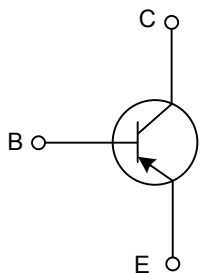
The UTC **STD888** is a high current, high performance, low voltage PNP transistor; it uses UTC's advanced technology to provide customers high DC current gain and very low saturation voltage.

The UTC **STD888** is suitable for switching regulator in battery charger applications, heavy load driver and voltage regulation in bias supply circuits, etc.

### FEATURES

- \* Very low collector to emitter saturation voltage
- \* High DC current gain

### EQUIVALENT CIRCUIT

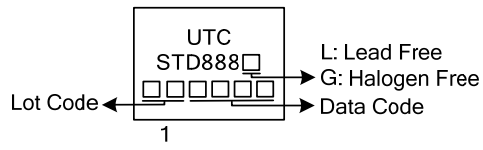


### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
STD888L-TN3-R	STD888G-TN3-R	TO-252	B	C	E	Tape Reel

<p>STD888G-TN3-R</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Green Package</li> </ul>	<ul style="list-style-type: none"> <li>(1) R: Tape Reel</li> <li>(2) TN3: TO-252</li> <li>(3) G: Halogen Free and Lead Free, L: Lead Free</li> </ul>
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### ■ MARKING



### ■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage ( $I_E=0$ )	$V_{CBO}$	-60	V
Collector-Emitter Voltage ( $I_B=0$ )	$V_{CEO}$	-30	V
Emitter-Base Voltage ( $I_C=0$ )	$V_{EBO}$	-6	V
Collector Current	$I_C$	-5	A
Collector Peak Current ( $t_p < 5ms$ )	$I_{CM}$	-10	A
Total Dissipation at $T_C=25^\circ C$	$P_D$	15	W
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature	$T_{STG}$	-65 ~ +150	$^\circ C$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

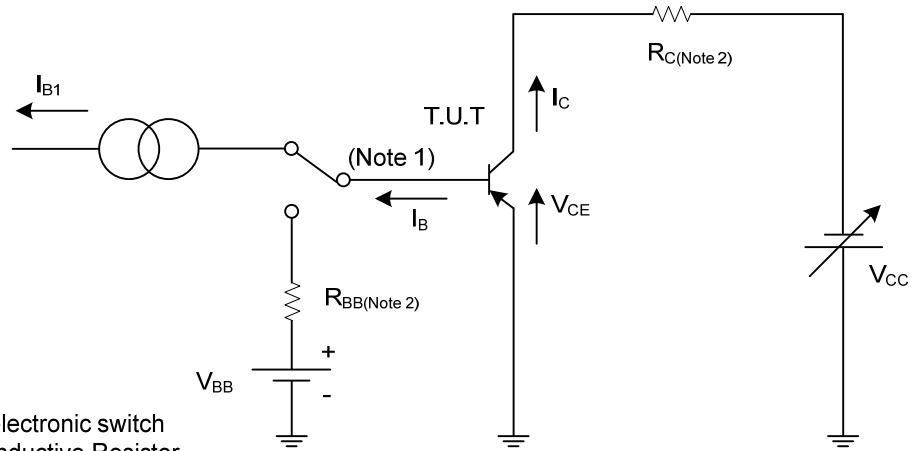
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

### ■ ELECTRICAL CHARACTERISTICS ( $T_C=25^\circ C$ unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_E=0, I_C=-100\mu A$	-60			V
Collector-Emitter Breakdown Voltage (Note)	$BV_{CEO}$	$I_B=0, I_C=-10mA$	-30			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_C=0, I_E=-100\mu A$	-6			V
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=-30V, I_E=0$			-10	nA
Emitter Cut-off Current	$I_{EBO}$	$I_C=0, V_{EB}=-6V$			-10	nA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500mA, I_B=-5mA$			-0.15	V
		$I_C=-2A, I_B=-50mA$			-0.25	V
		$I_C=-5A, I_B=-250mA$			-0.70	V
		$I_C=-6A, I_B=-250mA$			-0.70	V
		$I_C=-8A, I_B=-400mA$			-1	V
Base-Emitter Saturation Voltage (Note)	$V_{BE(sat)}$	$I_C=-2A, I_B=-50mA$			-1.1	V
		$I_C=-6A, I_B=-250mA$			-1.4	V
DC Current Gain (Note)	$h_{FE}$	$I_C=-10mA, V_{CE}=-1V$	150	200		
		$I_C=-500mA, V_{CE}=-1V$	150	200	300	
		$I_C=-5A, V_{CE}=-1V$	75	100		
		$I_C=-8A, V_{CE}=-1V$	40	55		
		$I_C=-10A, V_{CE}=-1V$	15	35		
Delay Time	$t_D$	$I_C=-3A, I_{B1}=-I_{B2}=-60mA$ $V_{CC}=-20V$		180	220	ns
Rise Time	$t_R$			160	210	ns
Storage Time	$t_S$			250	300	ns
Fall Time	$t_F$			80	100	ns

Note: Pulsed: Pulse duration=300 $\mu s$ , duty cycle $\leq 1.5\%$ .

RESISTIVE LOAD SWITCHING TEST CIRCUIT



Notes 1. Fast electronic switch  
 2. Non-inductive Resistor

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