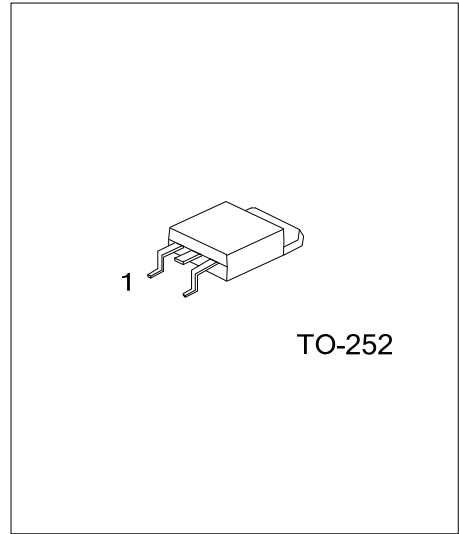




## STD888

## PNP EPITAXIAL SILICON TRANSISTOR

HIGH CURRENT,  
HIGH PERFORMANCE,  
LOW VOLTAGE PNP  
TRANSISTOR



### DESCRIPTION

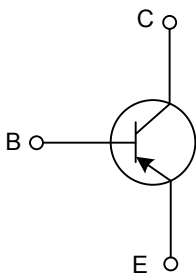
The UTC **STD888** is a high current, high performance, low voltage PNP transistor; it uses UTC's advanced technology to provide customers high DC current gain and very low saturation voltage.

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

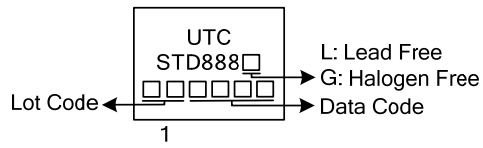


### ORDERING INFORMATION

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>
--	--

## 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.

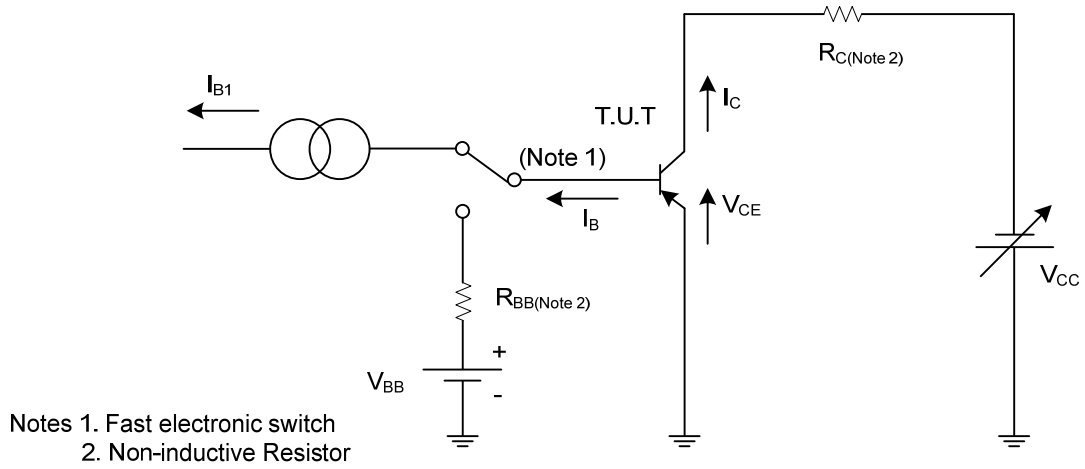
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

### ■ 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



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.