



## MMBTA63-64

## PNP SILICON TRANSISTOR

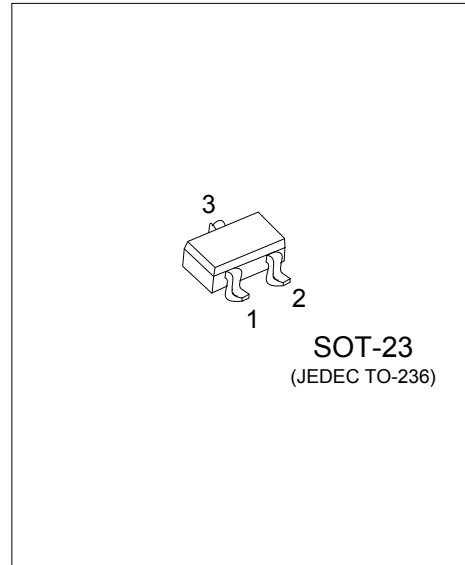
### DARLINGTON TRANSISTOR

#### DESCRIPTION

The UTC **MMBTA63-64** is a Darlington transistor.

#### FEATURES

- \* Collector-Emitter Voltage:  $V_{CES} = -30V$
- \* Collector current up to  $-1.2A$
- \* Collector Dissipation:  $P_C = 625\text{ mW}$



#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MMBTA63L-AE3-R	MMBTA63G-AE3-R	SOT-23	B	E	C	Tape Reel
MMBTA64L-AE3-R	MMBTA64G-AE3-R	SOT-23	B	E	C	Tape Reel

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

MMBTA63G-AE3-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) AE3: SOT-23, AL3: SOT-323
	(3)Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

#### MARKING

MMBTA63	MMBTA64

# MMBTA63-64

## PNP SILICON TRANSISTOR

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

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	$V_{CBO}$	-30	V
Collector-Emitter Voltage	$V_{CES}$	-30	V
Emitter-Base Voltage	$V_{EBO}$	-10	V
Collector Dissipation ( $T_C=25^{\circ}\text{C}$ )	$P_C$	350	mW
Collector Current	$I_C$	-1.2	A
Junction Temperature	$T_J$	+150	$^{\circ}\text{C}$
Operating Temperature Range	$T_{OPR}$	-40 ~ +150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-40 ~ +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 ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	$BV_{CES}$	$I_C=-100\mu\text{A}$ , $I_B=0$	-30			V
Collector CutOff Current	$I_{CBO}$	$V_{CB}=-30\text{V}$ , $I_E=0$			-100	nA
Emitter CutOff Current	$I_{EBO}$	$V_{EB}=-10\text{V}$ , $I_C=0$			-100	nA
DC Current Gain	MMBTA63	$V_{CE}=-5\text{V}$ , $I_C=-10\text{mA}$	5000			
	MMBTA64		10000			
	MMBTA63	$V_{CE}=-5\text{V}$ , $I_C=-100\text{mA}$	10000			
	MMBTA64		20000			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-100\text{mA}$ , $I_B=-0.1\text{mA}$			-1.5	V
Base-Emitter on Voltage	$V_{BE(ON)}$	$V_{CE}=-5\text{V}$ , $I_C=-100\text{mA}$			-2.0	V
Current Gain Bandwidth Product	$f_T$	$V_{CE}=-5\text{V}$ , $I_C=-10\text{mA}$ , $f=100\text{MHz}$	125			MHz

Note: Pulse test: Pulse Width < 300 $\mu\text{s}$ , Duty Cycle < 2%.

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. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.