



## MMBTA92

## PNP SILICON TRANSISTOR

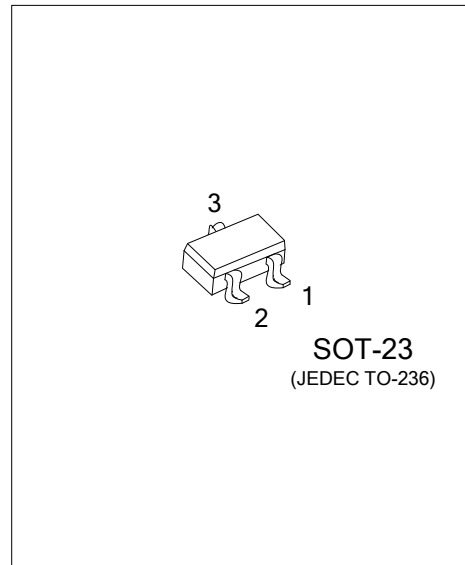
### HIGH VOLTAGE PNP TRANSISTOR

#### DESCRIPTION

The UTC **MMBTA92** are high voltage PNP transistors, designed for telephone signal switching and for high voltage amplifier.

#### FEATURES

- \* High Collector-Emitter voltage:  $V_{CE0} = -300V$
- \* Collector Dissipation:  $P_{C(MAX)} = 350mW$



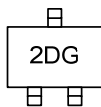
#### ORDERING INFORMATION

Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
MMBTA92G-AE3-R	SOT-23	E	B	C	Tape Reel

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

<p>MMBTA92G-AE3-R</p>	<p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) R: Tape Reel</p> <p>(2) AE3: SOT-23</p> <p>(3) G: Halogen Free and Lead Free</p>
-----------------------	--	---

#### MARKING



■ ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		$V_{CBO}$	-300	V
Collector-Emitter Voltage		$V_{CEO}$	-300	V
Emitter-Base Voltage		$V_{EBO}$	-5	V
Collector Current		$I_C$	-500	mA
Collector Dissipation	$T_A=25^\circ\text{C}$	$P_C$	350	mW
	$T_C=25^\circ\text{C}$		1.5	W
	Derate Above $T_a > 25^\circ\text{C}$		12	mW/ $^\circ\text{C}$
Junction Temperature		$T_J$	+150	$^\circ\text{C}$
Storage Temperature		$T_{STG}$	-40 ~ +150	$^\circ\text{C}$

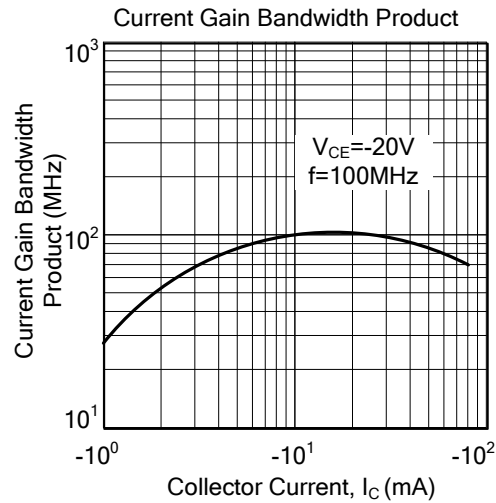
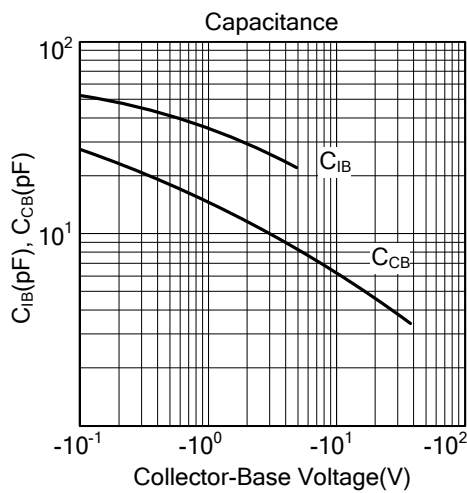
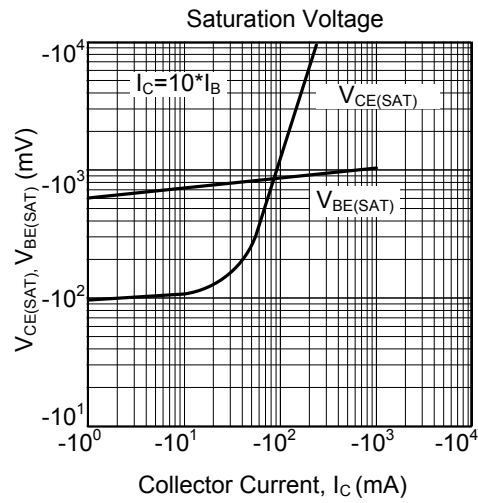
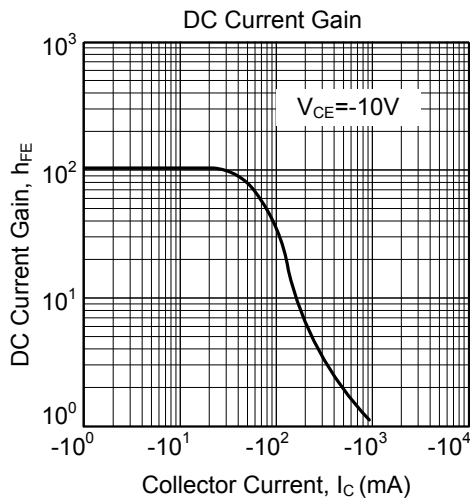
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ( $T_J=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-300			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=-1\text{mA}, I_B=0$	-300			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-5			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=-200\text{V}, I_E=0$			-0.25	$\mu\text{A}$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=-3\text{V}, I_C=0$			-0.10	$\mu\text{A}$
DC Current Gain (Note)	$h_{FE}$	$V_{CE}=-10\text{V}, I_C=-1\text{mA}$	60			
		$V_{CE}=-10\text{V}, I_C=-10\text{mA}$	80			
		$V_{CE}=-10\text{V}, I_C=-30\text{mA}$	80			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)1}$	$I_C=-20\text{mA}, I_B=-2\text{mA}$			-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)1}$	$I_C=-20\text{mA}, I_B=-2\text{mA}$			-0.90	V
Current Gain Bandwidth Product	$f_T$	$V_{CE}=-20\text{V}, I_C=-10\text{mA}, f=100\text{MHz}$	50			MHz
Collector Base Capacitance	$C_{cb}$	$V_{CB}=-20\text{V}, I_E=0, f=1\text{MHz}$			6	pF

Note: Pulse test:  $PW < 300\mu\text{s}$ , Duty Cycle  $< 2\%$ ,  $V_{CE(SAT)1} < 200\text{mV}$  (Class SIN)

### TYPICAL CHARACTERISTICS



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.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Bipolar Transistors - BJT category](#):*

*Click to view products by [Unisonic manufacturer](#):*

Other Similar products are found below :

[BC559C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [NJVMJD148T4G](#) [NTE16](#) [NTE195A](#) [IMX9T110](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SB1204S-TL-E](#) [2SC5488A-TL-H](#) [FMC5AT148](#) [2N2369ADCSM](#) [2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SC4618TLN](#) [CPH6501-TL-E](#) [US6T6TR](#) [BAX18/A52R](#) [BC556/112](#) [IMZ2AT108](#) [MMST8098T146](#) [MCH6102-TL-E](#) [BC846B-13-F](#) [2N3879](#) [30A02MH-TL-E](#) [NTE13](#) [NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#) [JANTX2N2920L](#) [JANSR2N2907AUB](#) [CMLT3946EG TR](#) [SNSS40600CF8T1G](#) [CMLT3906EG TR](#) [GRP-DATA-JANS2N2907AUB](#) [GRP-DATA-JANS2N2222AUA](#) [MMDT3946FL3-7](#) [2N4240](#) [JANS2N3019](#) [MSB30KH-13](#) [2N2221AUB](#) [2SD1815T-TL-E](#) [2N6678](#) [2N2907Ae4](#) [JAN2N3507](#)