



MMBTA42

NPN SILICON TRANSISTOR

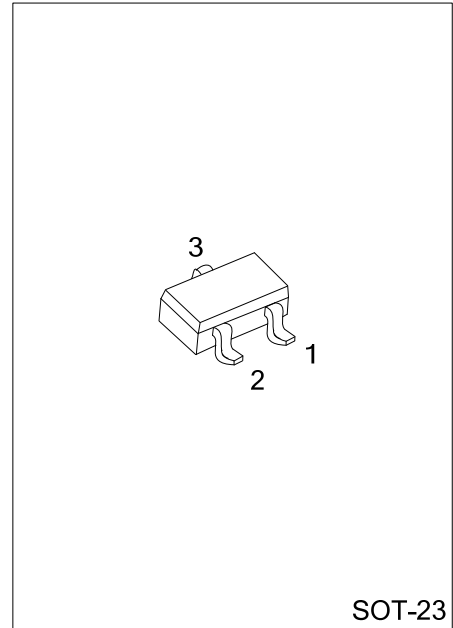
HIGH VOLTAGE TRANSISTOR

DESCRIPTION

The UTC **MMBTA42** are high voltage transistors, designed for telephone switch and high voltage switch.

FEATURES

- * Collector-Emitter voltage: $V_{CE0}=300V$
- * High current gain
- * Collector Dissipation: $P_{c(max)}=350mW$



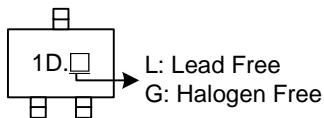
Lead-free: MMBTA42L
 Halogen-free: MMBTA42G

ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
MMBTA42-AE3-R	MMBTA42L-AE3-R	MMBTA42G-AE3-R	SOT-23	E	B	C	Tape Reel

<p>MMBTA42L-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Lead Plating</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23 (3) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

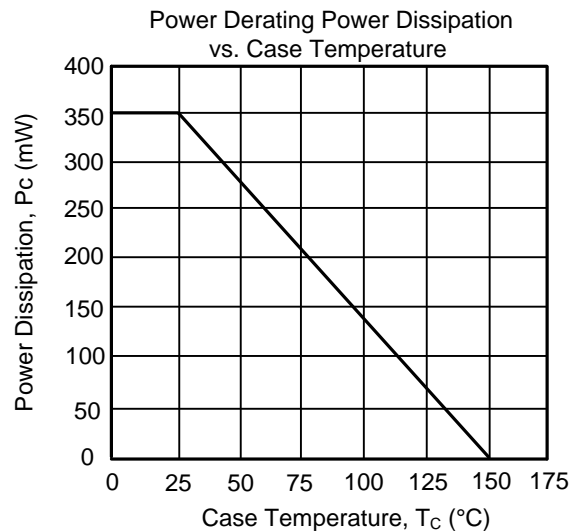
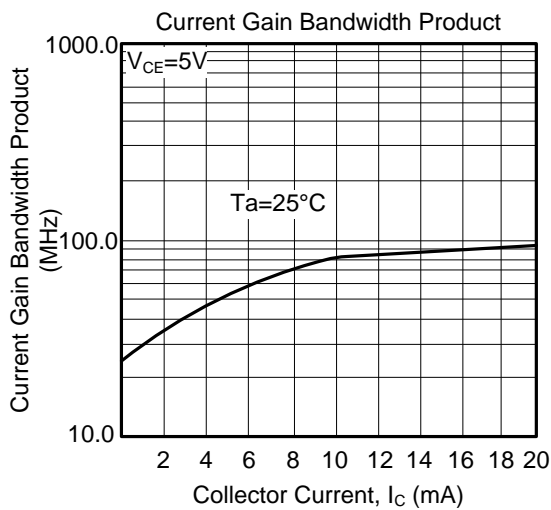
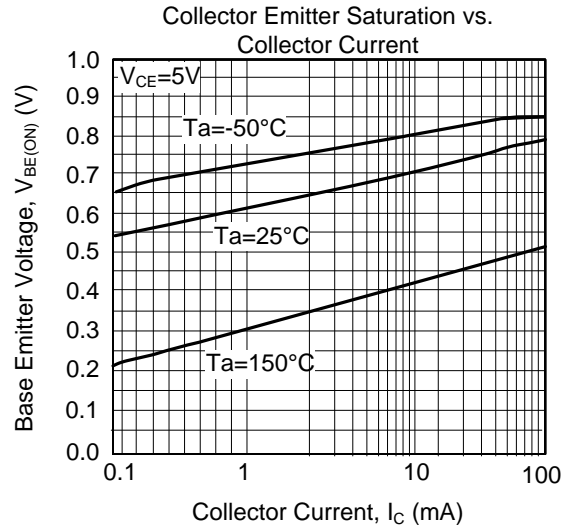
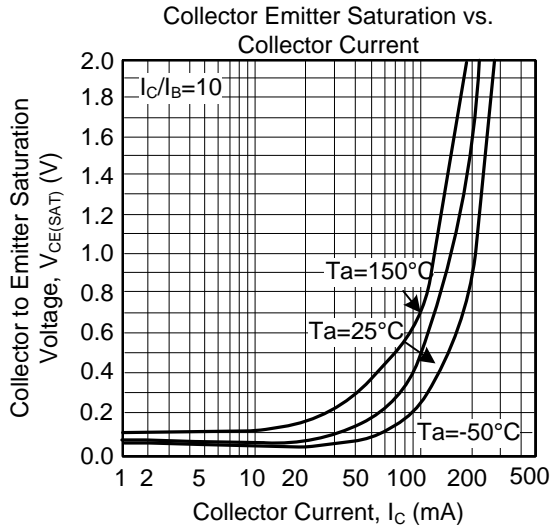
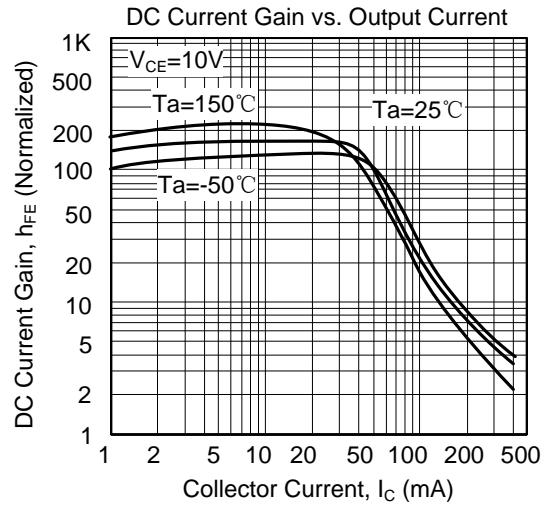
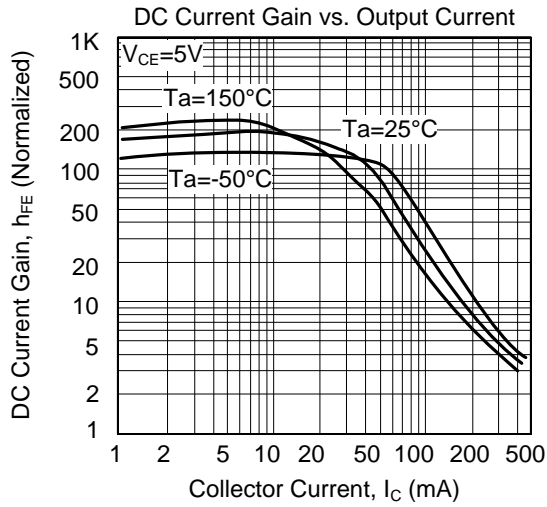
PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V _{CBO}	300	V
Collector-Emitter Voltage	V _{CEO}	300	V
Emitter-Base Voltage	V _{EBO}	6	V
Collector Dissipation (Ta=25°C)	P _C	350	mW
Collector Current	I _C	500	mA
Junction Temperature	T _J	+150	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

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°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CBO}	I _C =100μA, I _E =0	300			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C =1mA, I _B =0	300			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E =100μA, I _C =0	6			V
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	I _C =20mA, I _B =2mA			0.2	V
Base-Emitter Saturation Voltage	V _{BE(SAT)}	I _C =20mA, I _B =2mA			0.90	V
Collector Cut-Off Current	I _{CBO}	V _{CB} =200V, I _E =0			100	nA
Emitter Cut-Off Current	I _{EBO}	V _{BE} =6V, I _C =0			100	nA
DC Current Gain	h _{FE}	V _{CE} =10V, I _C =1mA	80			
		V _{CE} =10V, I _C =10mA	80		300	
		V _{CE} =10V, I _C =30mA	80			
Current Gain Bandwidth Product	f _T	V _{CE} =20V, I _C =10mA, f=100MHz	50			MHz
Collector Base Capacitance	C _{cb}	V _{CB} =20V, I _E =0, f=1MHz			3	pF

TYPICAL CHARACTERISTICS



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