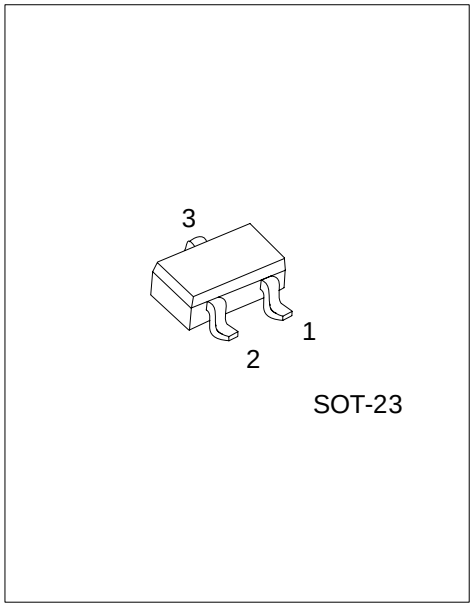
MMBTA92

PNP SILICON TRANSISTOR

HIGH VOLTAGE PNP TRANSISTOR



*Pb-free plating product number: MMBTA92L

■ DESCRIPTION

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

■ FEATURES

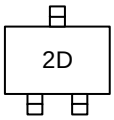
* High Collector-Emitter voltage: V_{CEO}=-300V
* Collector Dissipation: $P_{C(MAX)}$=350mW

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
MMBTA92-AE3-R	MMBTA92L-AE3-R	SOT-23	E	B	C	Tape Reel

MMBTA92L-AE3-R (1)Packing Type (2)Package Type (3)Lead Plating	(1) R: Tape Reel (2) AE3: SOT-23 (3) L: Lead Free Plating, Blank: Pb/Sn

■ 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	Ta=25℃	P_C	350	mW
	Tc=25℃		1.5	W
	Derate Above 25℃		12	mW/℃
Junction Temperature		T_J	+150	℃
Storage Temperature		T_{STG}	-40 ~ +150	℃

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.

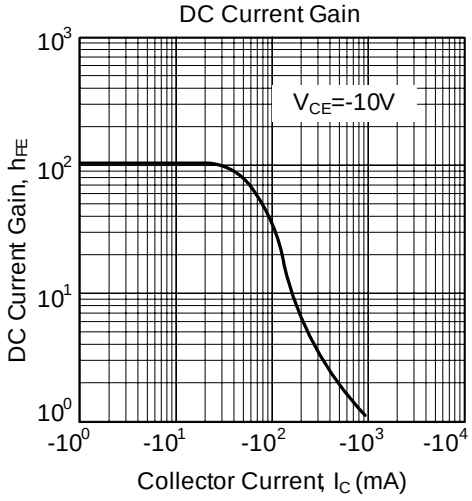
■ ELECTRICAL CHARACTERISTICS (T_J=25℃, unless otherwise specified)

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	-5			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-200V, I_E=0			-0.25	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-3V, I_C=0			-0.10	μA
DC Current Gain (Note)	h_{FE}	V_{CE}=-10V, I_C=-1mA V_{CE}=-10V, I_C=-10mA V_{CE}=-10V, I_C=-30mA	60 80 80			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)1}$	I_C=-20mA, I_B=-2mA			-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)1}$	I_C=-20mA, I_B=-2mA			-0.90	V
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			6	pF

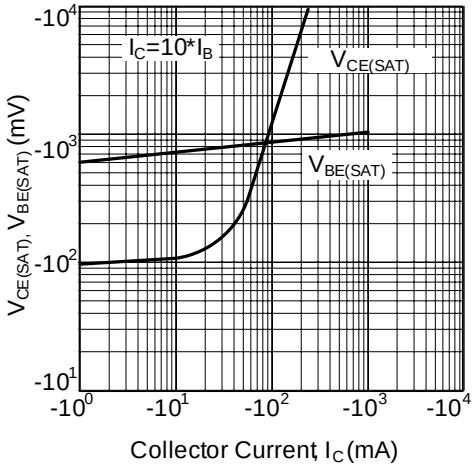
Note: Pulse test: PW<300μs, Duty Cycle<2%, $V_{CE(sat)}$1<200mV (Class SIN)

■ TYPICAL CHARACTERISTICS

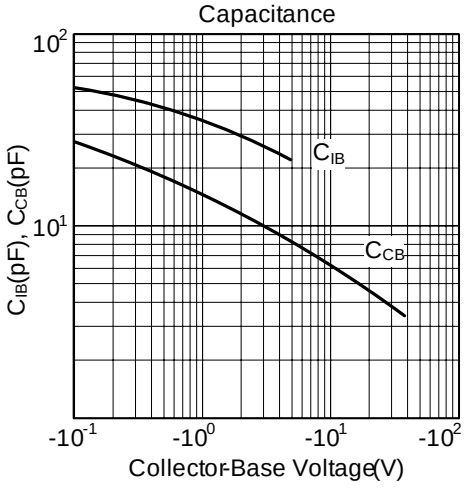
DC Current Gain



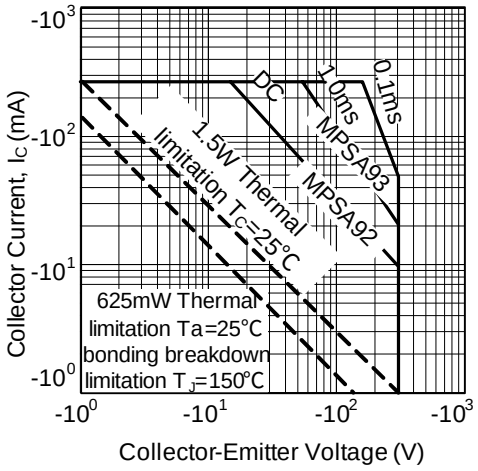
Saturation Voltage



Capacitance



Active-Region Safe Operating Area



Current Gain Bandwidth Product