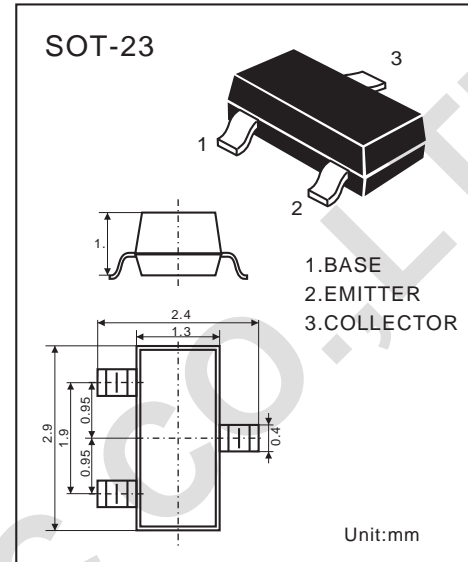


NPN EPITAXIAL SILICON TRANSISTOR

HIGH VOLTGE TRANDIDTOR

- Complement to MMBTA92LT1
- High Collector-Emitter Voltage: $V_{cbo}=300V$
- Collector current: $I_c=500mA$
- Collector Dissipation: $P_c=225mW(T_a=25^{\circ}C)$



ABSOLUTE MAXIMUM RATINGS

($T_a=25^{\circ}C$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_c	500	mA
Collector Dissipation $T_a=25^{\circ}C^*$	P_D	225	mW
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{stg}	-55~150	$^{\circ}C$

Electrical Characteristics

($T_a=25^{\circ}C$)

Characteristic	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Collector-Base Breakdown Voltage	BV_{CBO}	300			V	$I_c=100\mu A, I_E=0$
Collector-Emitter Breakdown Voltage#	BV_{CEO}	300			V	$I_c=1mA, I_B=0$
Emitter-Base Breakdown Voltage	BV_{EBO}	6			V	$I_E=100\mu A, I_c=0$
Collector Cutoff Current	I_{CBO}			100	nA	$V_{CB}=200V, V_E=0$
Collector Cutoff Current	I_{EBO}			100	nA	$V_{EB}=6V, I_c=0$
DC Current Gain	H_{FE}	40		250		$V_{CE}=10V, I_c=10mA$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.5	V	$I_c=20mA, I_B=2mA$
Base-Emitter On Voltage	$V_{BE(sat)}$			0.9	V	$I_c=20mA, I_B=2mA$
Collector-Base Capacitance	C_{ob}			3	PF	$V_{CB}=10V, I_E=0, f=1MHz$
Current Gain-Bandwidth Product	f_T	50			MHz	$V_{CE}=20V, I_c=10mA, f=100MHz$

*Total Device Dissipation: $FR=1X0.75X0.062$ in Board Derate $25^{\circ}C$

#Pulse Test: Pulse Width $\leq 300\mu S$ Duty cycle $\leq 2\%$

DEVICE MARKING:

MMBTA42LT1=1D

Typical Characteristics

