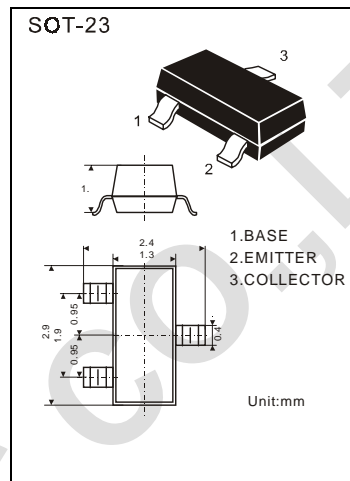


NPN EPITAXIAL SILICON TRANSISTOR

- \* High Collector-Emitter Voltage:  $V_{cbo}=80V$
- \* Collector Current:  $I_c=500mA$
- \* Collector Dissipation:  $P_c=225mW(T_a=25^{\circ}C)$

**ABSOLUTE MAXIMUM RATINGS at  $T_a=25^{\circ}C$**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{cbo}$	80	V
Collector-Emitter Voltage	$V_{ceo}$	80	V
Emitter-Base Voltage	$V_{eb}$	4	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 at  $T_a=25^{\circ}C$**

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	$BV_{cbo}$	80			V	$I_c=100\mu A$ $I_e=0$
Collector-Emitter Breakdown Voltage#	$BV_{ceo}$	80			V	$I_c=1mA$ $I_b=0$
Emitter-Base Breakdown Voltage	$BV_{ebo}$	4			V	$I_e=100\mu A$ $I_c=0$
Collector Cutoff Current	$I_{cbo}$			100	nA	$V_{cb}=80V$ $I_e=0$
Collector Cutoff Current	$I_{ces}$			100	nA	$V_{ce}=60V$ $I_b=0$
DC Current Gain	$H_{fe1}$	80		250		$V_{ce}=1V$ $I_c=10mA$
DC Current Gain	$H_{fe2}$	80				$V_{ce}=1V$ $I_c=100mA$
Collector-Emitter Saturation Voltage	$V_{ce(sat)}$			0.25	V	$I_c=100mA$ $I_b=10mA$
Base-Emitter On Voltage	$V_{be(on)}$			1.2	V	$I_c=100mA$ $V_{ce}=1V$
Current Gain-Bandwidth Product	$f_T$		100		MHz	$V_{ce}=2V$ $I_c=10mA$ $f=100MHz$

\* Total Device Dissipation :  $FR=1 \times 0.75 \times 0.062$ in Board, Derate  $25^{\circ}C$ .

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

DEVICE MARKING:

MMBTA06LT1=1G