

NPN EPITAXIAL SILICON TRANSISTOR

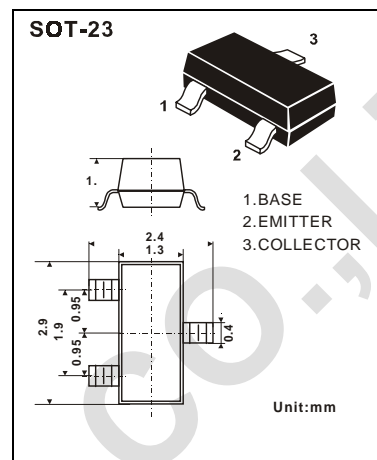
AMPLIFIER TRANSISTOR

High Collector-Emitter Voltage: $V_{cbo}=60V$

- * 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}	60	V
Collector-Emitter Voltage	V_{ceo}	60	V
Emitter-Base Voltage	V_{ebo}	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}	60			V	$I_c=100\mu A$ $I_e=0$
Collector-Emitter Breakdown Voltage#	BV_{ceo}	60			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	$V_{cb}=60V$ $I_e=0$
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=1x0.75x0.062in Board, Derate $25^{\circ}C$.

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

DEVICE MARKING: MMBTA05LT1=1H