

**MMBTA92G**  
Rev.F Apr.-2017

SOT-23          PNP          Silicon PNP transistor in a SOT-23 Plastic Package.

, , , MMBTA42G  
High voltage, low saturation voltage, low collector output capacitance, complementary pair with

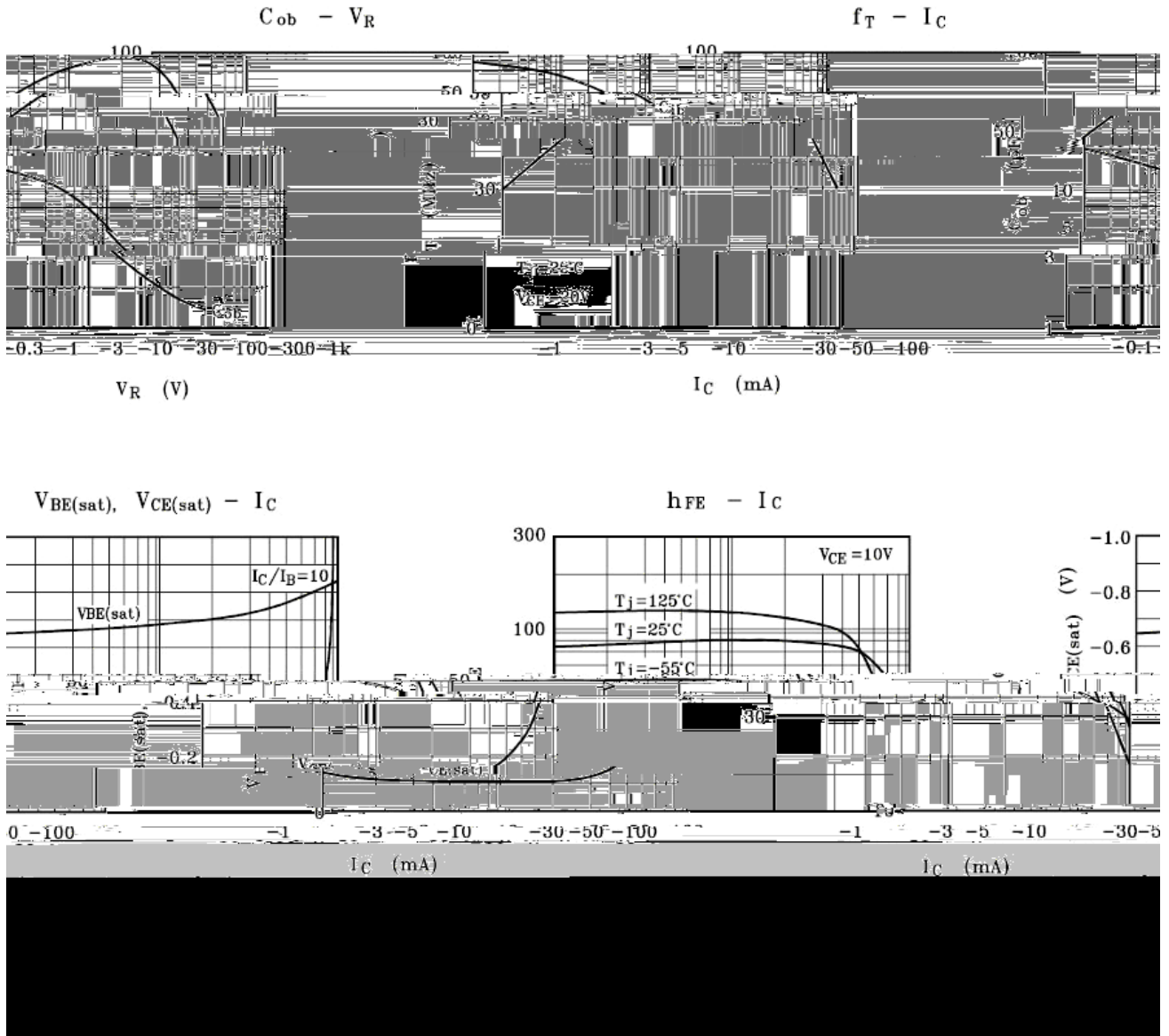
**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-300	V
Collector to Emitter Voltage	$V_{CEO}$	-300	V
Emitter to Base Voltage	$V_{EBO}$	-5.0	V
Collector Current	$I_C$	-500	mA
Collector Power Dissipation	$P_C$	350	mW
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	

**/ Electrical Characteristics(Ta=25 )**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	$V_{CBO}$	$I_C=-100mA$ $I_E=0$	-300			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=-1.0mA$ $I_B=0$	-300			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E=-100 A$ $I_C=0$	-5.0			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=-200V$ $I_E=0$			-0.25	A
Emitter Cut-off Current	$I_{EBO}$	$V_{BE}=-3.0V$ $I_C=0$			-0.1	A
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-10V$ $I_C=-10mA$	40			
	$h_{FE(2)}$	$V_{CE}=-10V$ $I_C=-30mA$	25			
	$h_{FE(3)}$	$V_{CE}=-10V$ $I_C=-1.0mA$	25			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-20mA$ $I_B=-2.0mA$			-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-20mA$ $I_B=-2.0mA$			-0.9	V
Transition Frequency	$f_T$	$V_{CE}=-20V$ $f=100MHz$ $I_C=-10mA$	50			MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=-20V$ $f=1.0MHz$ $I_E=0$			6.0	pF

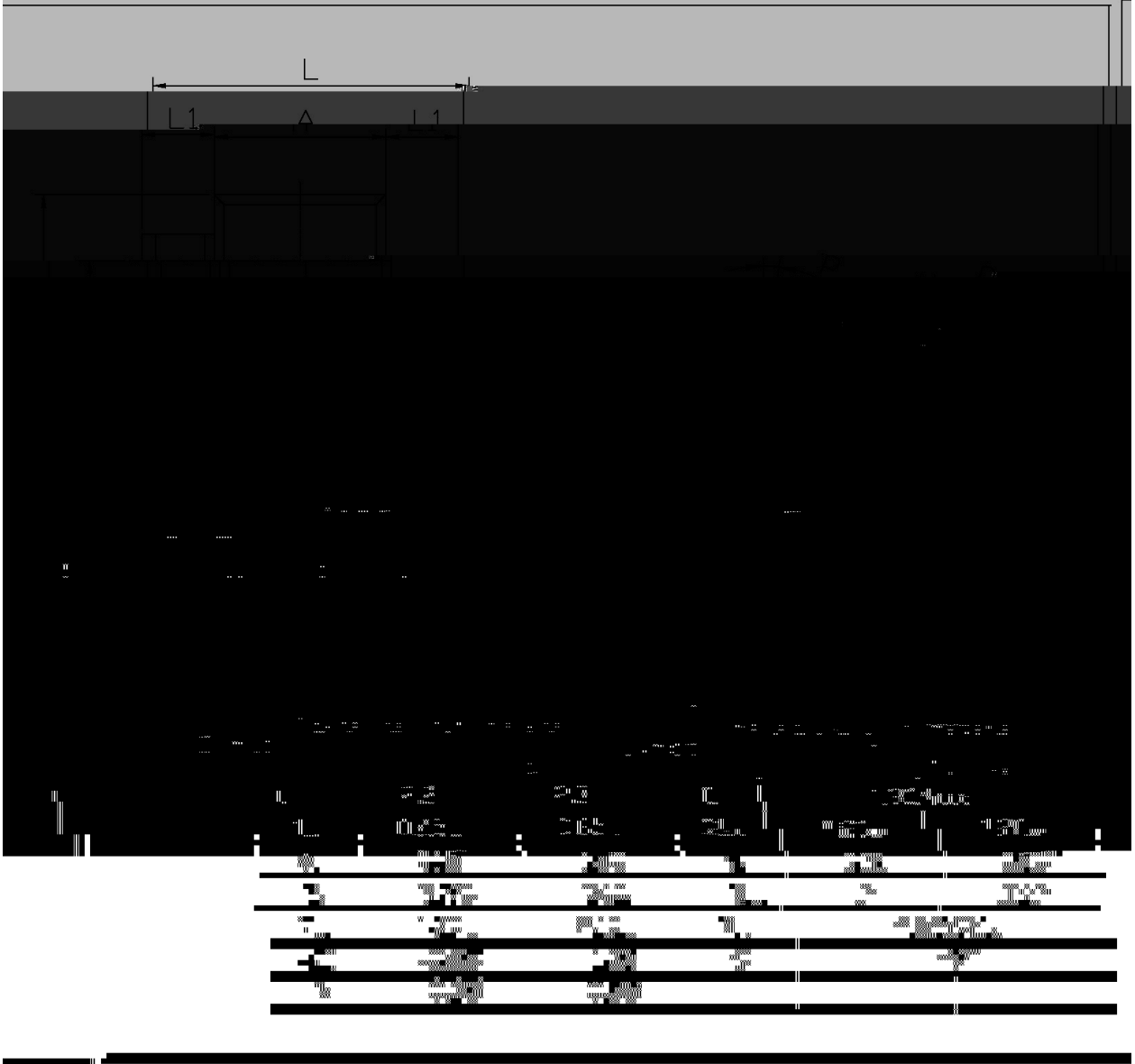
/ Electrical Characteristic Curve



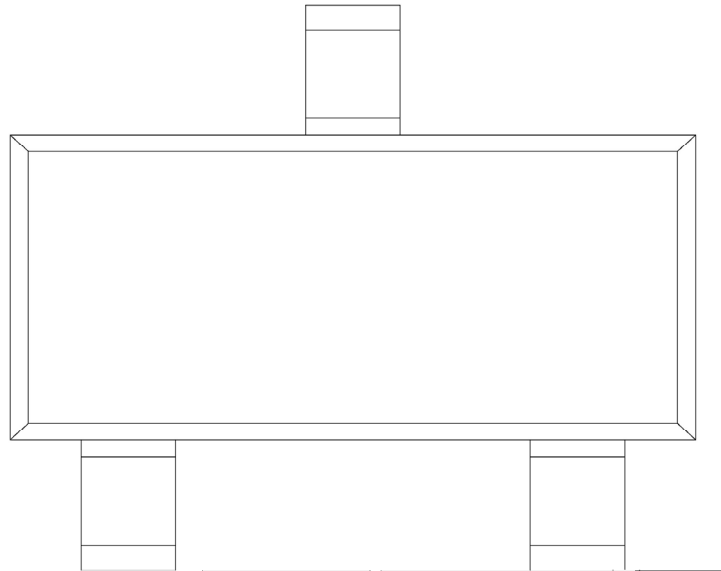
/ Package Dimensions

SOT-23

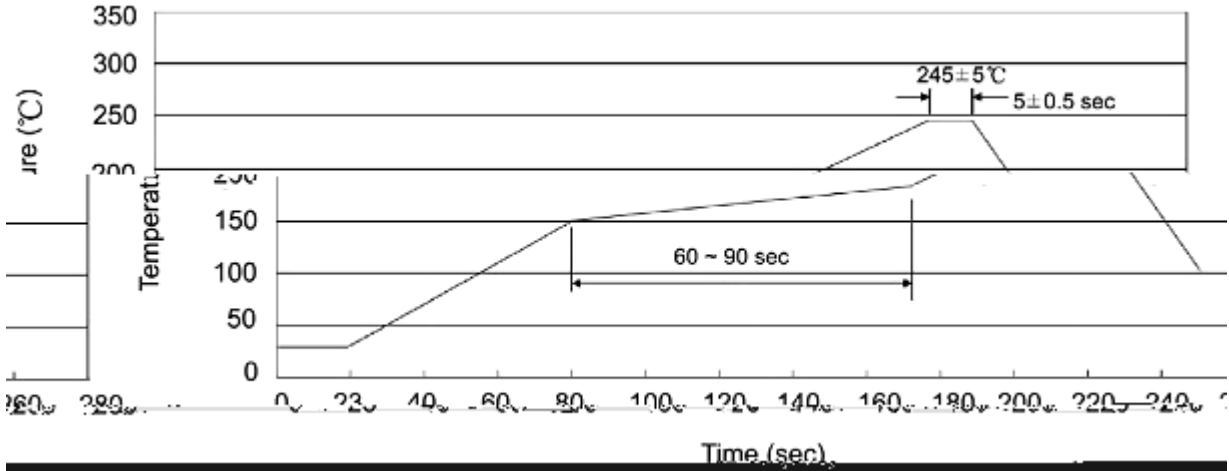
单位: mm



/ Marking Instructions



( ) / Temperature Profile for IR Reflow Soldering (Pb-Free)



Note:

- |   |       |     |    |           |   |
|---|-------|-----|----|-----------|---|
| 1 | 25    | 150 | 60 | 90sec;    | 1.Preheating:25~150 , Time:60~90sec.    |
| 2 | 245±5 |     |    | 5±0.5sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 |       |     | 2  | 10 /sec.  | 3. Cooling Speed: 2~10 /sec.            |

/ Resistance to Soldering Heat Test Conditions

260±5                      10±1 sec.                      Temp.:260±5                      Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	只卷盘	卷盘盒	只盒	盒箱	只箱	盒	箱	

/ Notices