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)

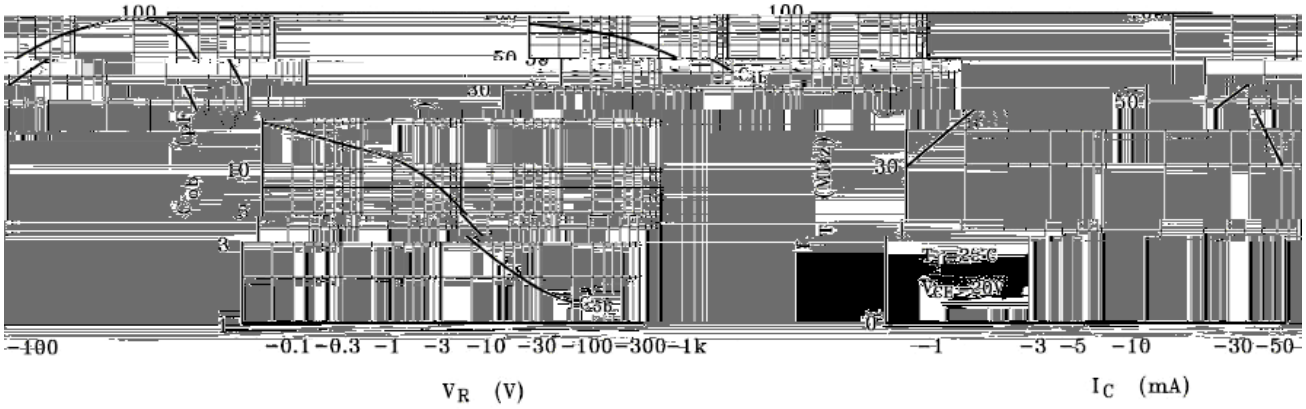
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-300	V
Collector to Emitter Voltage	V_{CEO}	-300	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-500	mA
Collector Power Dissipation	P_C	350	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ 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 I_C=-10mA f=100MHz	50			MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-20V I_E=0 f=1.0MHz			6.0	pF

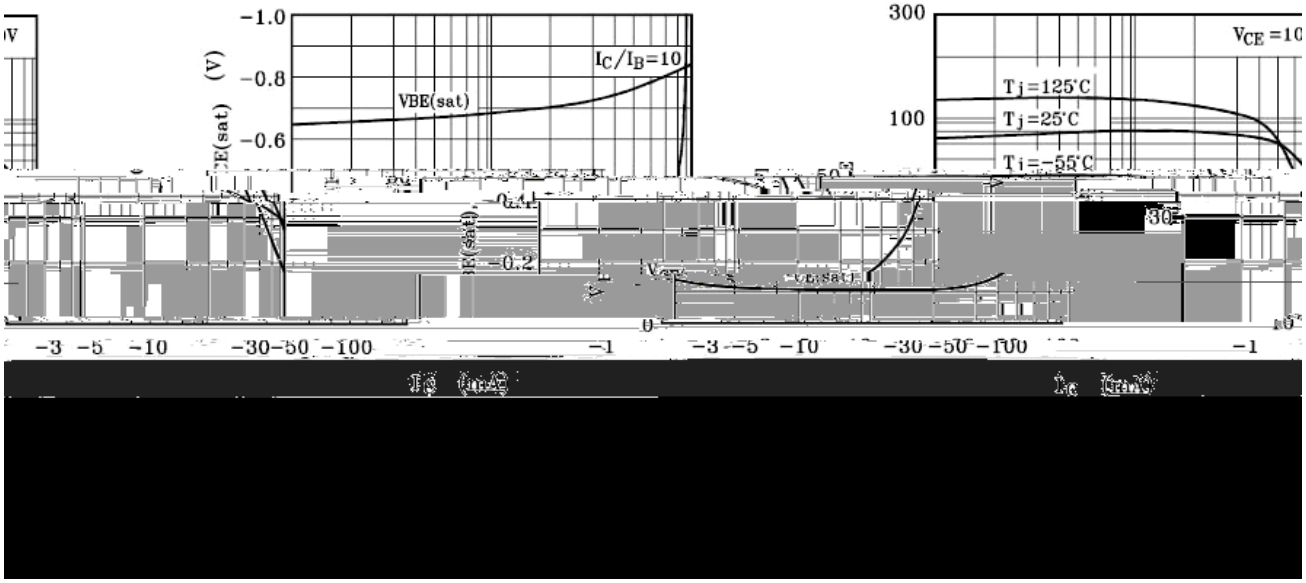
/ Electrical Characteristic Curve

C_{ob} – V_R



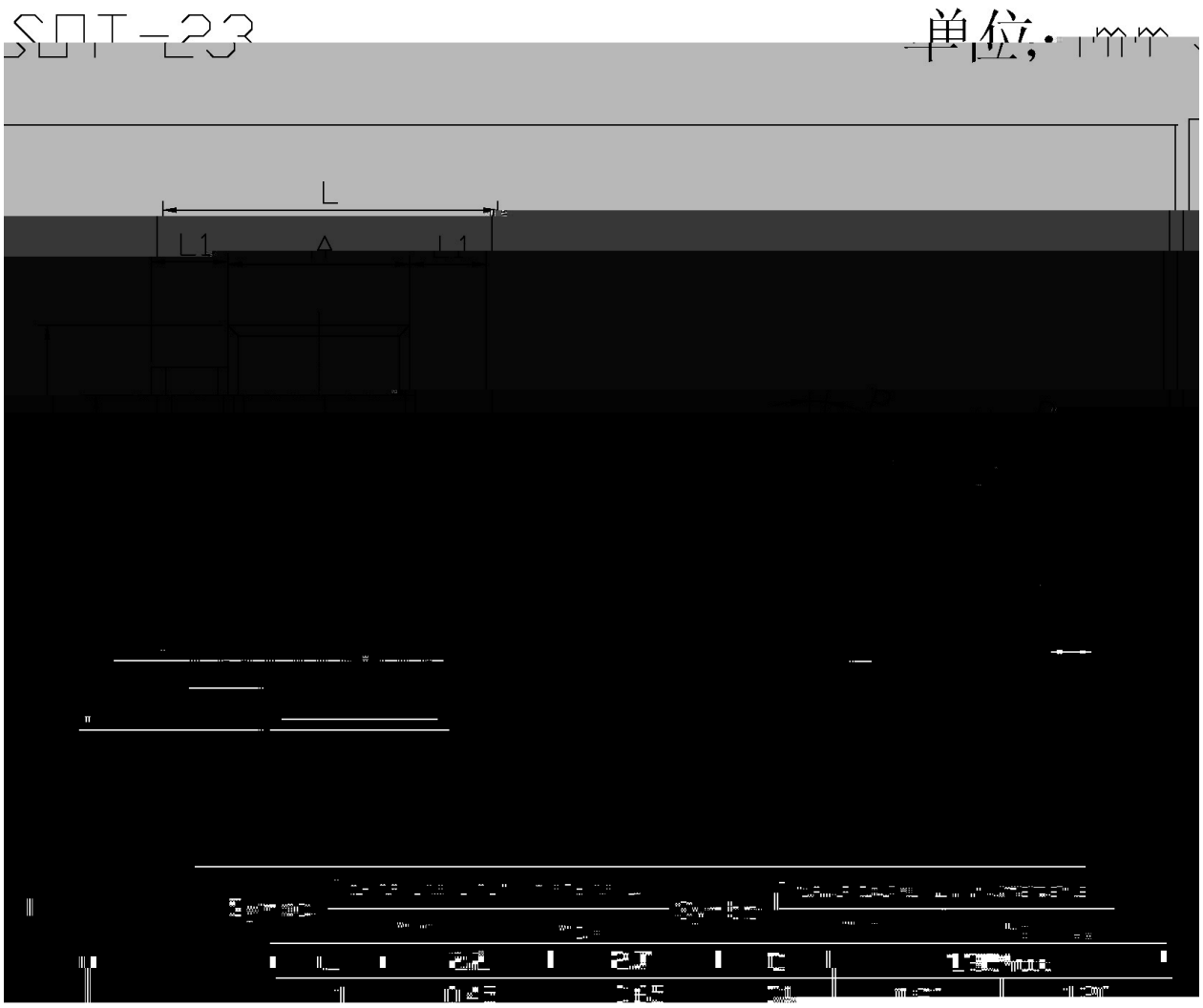
f_T – I_C

$V_{BE(sat)}$, $V_{CE(sat)}$ – I_C



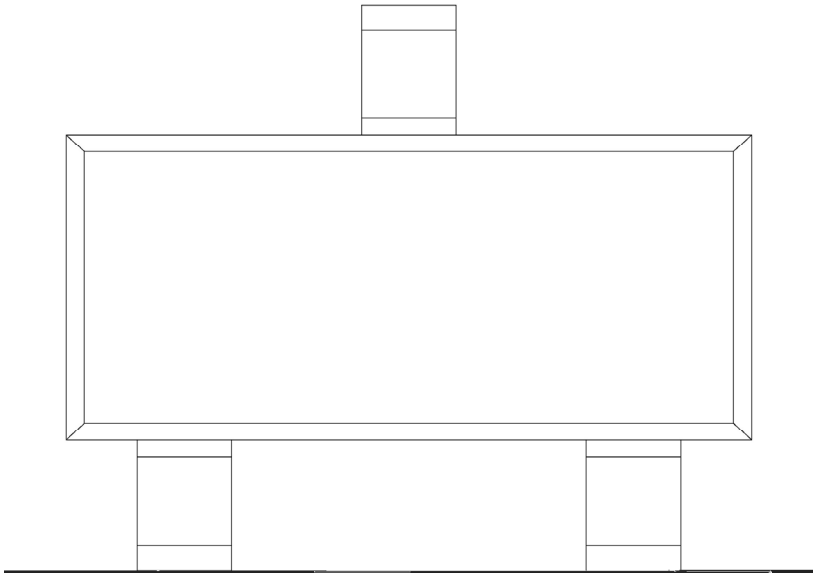
h_{FE} – I_C

/ Package Dimensions



b	0.35	0.55			

/ Marking Instructions



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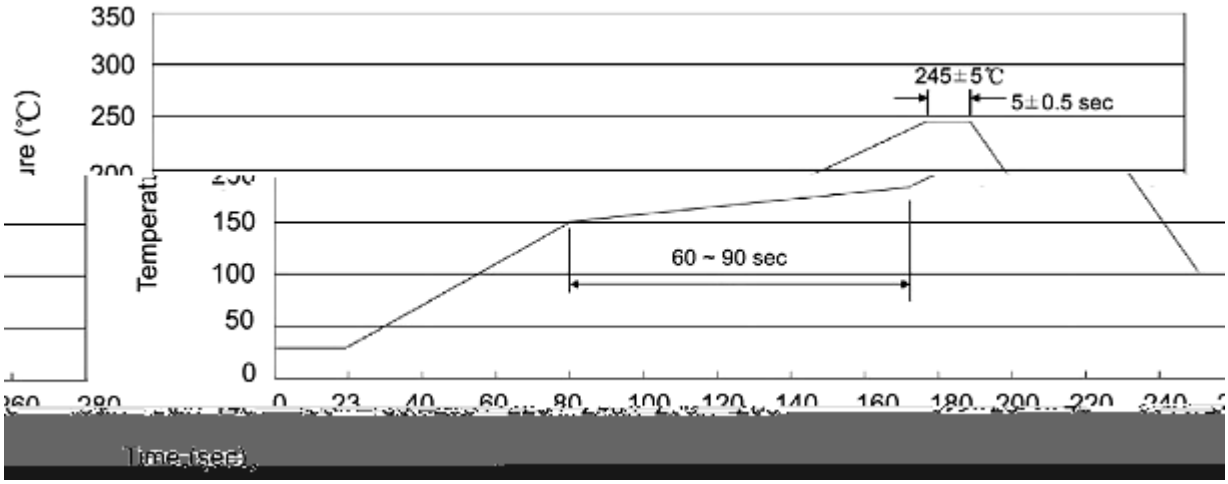
( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



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^3)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱

/ Notices