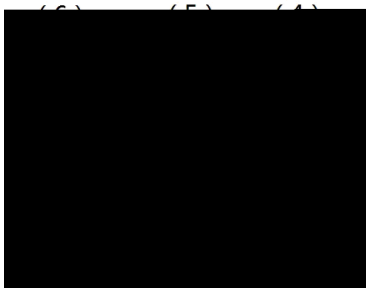
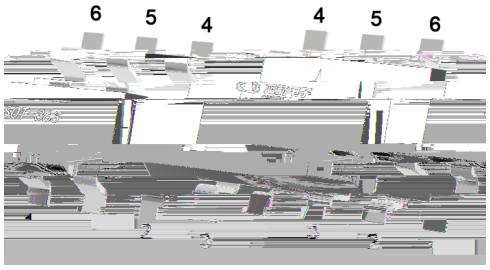
SOT-363 PNP+NPN

Silicon PNP and NPN transistor in a SOT-363 Plastic Package.

Low current ,Low voltage ,S-mini package,HF Product.

General purpose amplifier and switching.





PIN 1 4 Emitter PIN 2 5 Base PIN 3 6 Collector

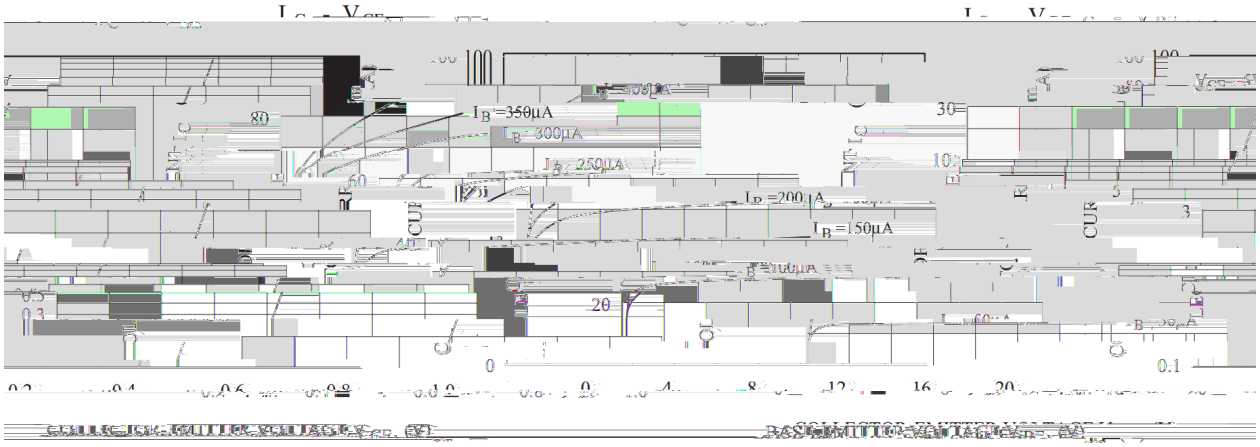
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	100	mA
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

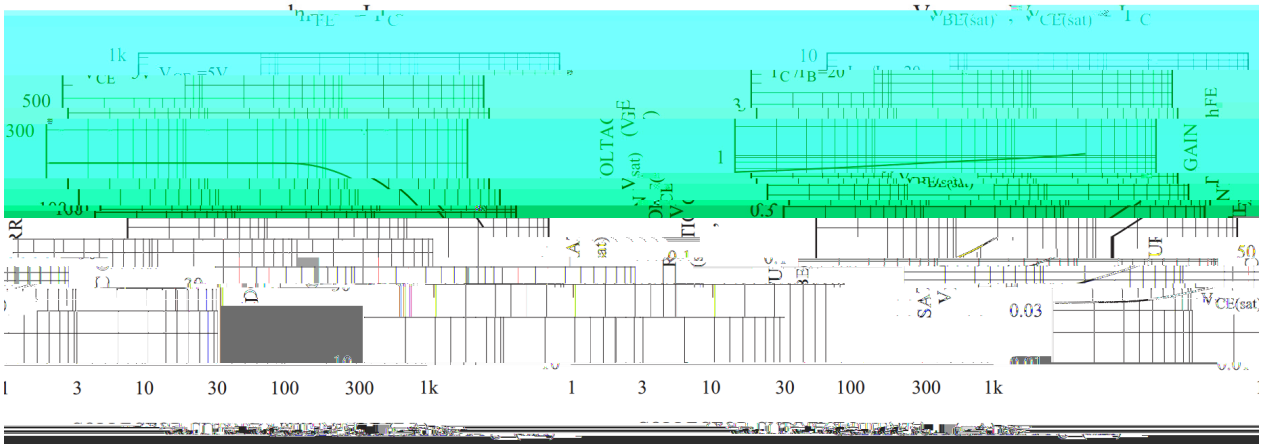
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-50	V
Collector to Emitter Voltage	V_{CEO}	-45	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-100	mA
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=30V I_E=0			15	nA
		V_{CB}=30V I_E=0 T_J=150			5	εA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=6.0V I_C=0			100	nA
DC Current Gain	h_{FE}	V_{CE}=5.0V I_C=2.0mA	200		450	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=10mA I_B=0.5mA			250	mV
		I_C=100mA I_B=5.0mA			600	mV
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=10mA I_B=0.5mA		700		mV
		I_C=100mA I_B=5.0mA		900		mV
Base-emitter voltage	V_{BE}	V_{CE}=5.0V I_C=2.0mA	580		700	mV
		V_{CE}=5.0V I_C=10mA			750	mV
Transition Frequency	f_T	V_{CE}=5.0V I_C=10mA f=100MHz		300		MHz
Collector Capacitance	C_{ob}	V_{CB}=10V f=1.0MHz I_E=i_e=0A		2.5	4.5	pF
Noise figure	NF	V_{CE}=6.0V I_C=0.1mA R_S				

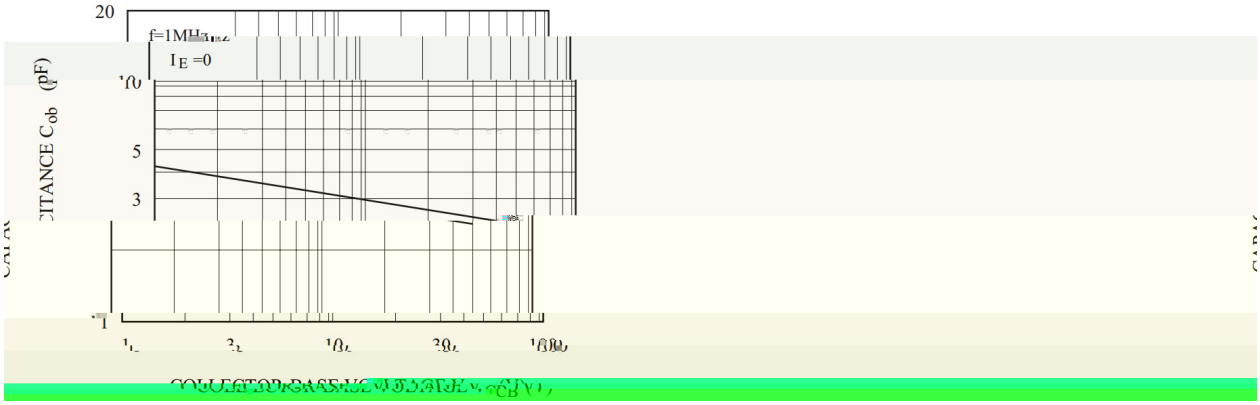
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=-30V I_E=0			-15	nA
		V_{CB}=-30V I_E=0 T_J=150			-5.0	εA
DC Current Gain	h_{FE}	V_{CE}=-5.0V I_C=-2.0mA	200		450	

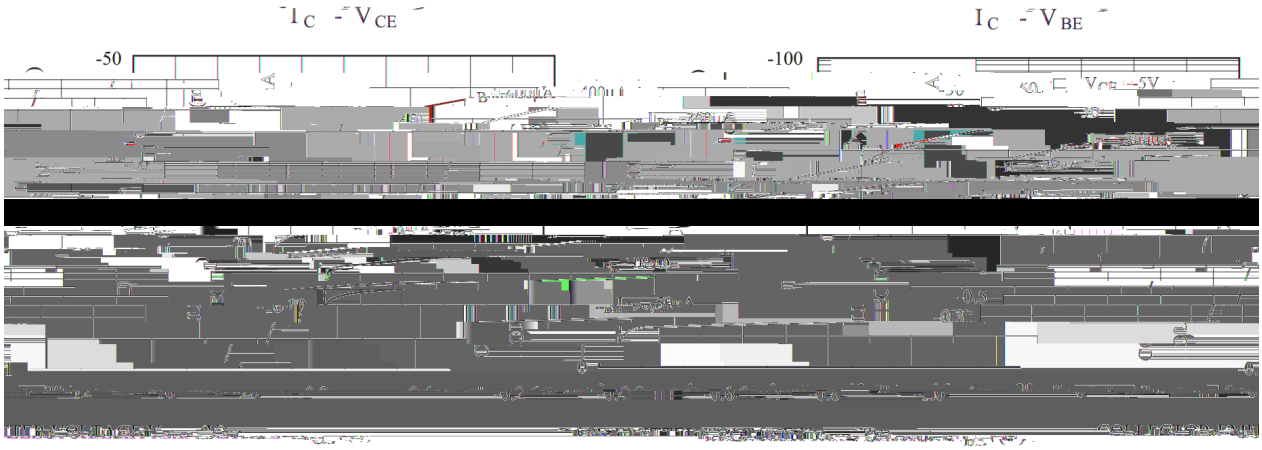
Collector

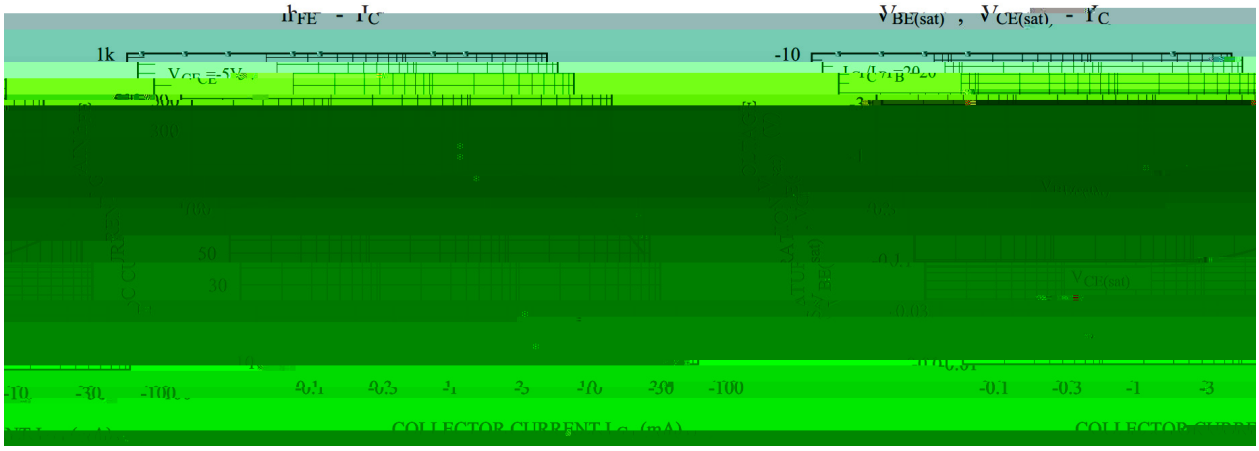

I B =350μA
I B =300μA
I B =250μA
I B =200μA
I B =150μA
80
60
40
20
0
30
10
5
3
1
0.5
0.3
0.1
0.2
0.4
0.6
0.8
1.0
4
8
12
16
20

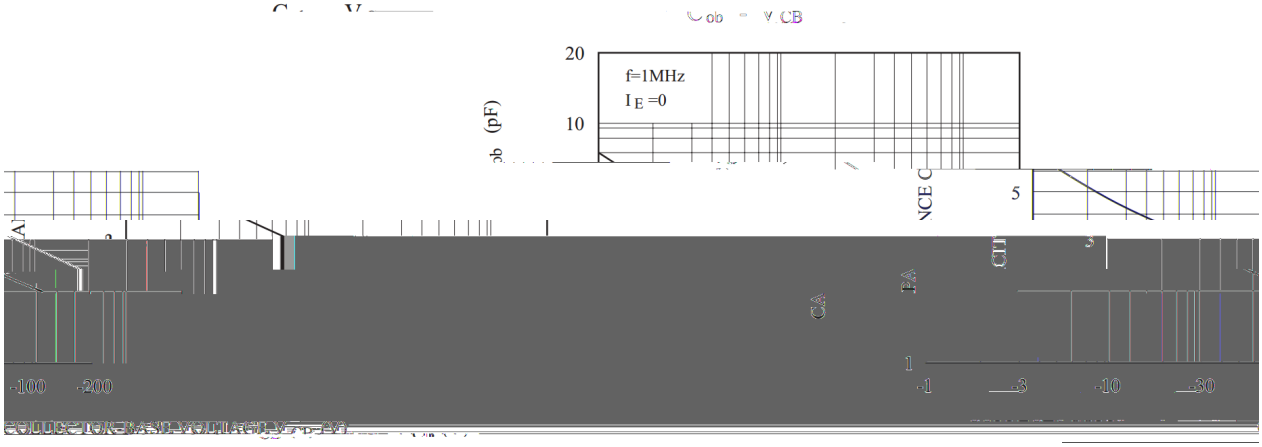

1k
500
300
100
50
30
10
3
1
0.5
0.03
1
3
10
30
100
300
1k

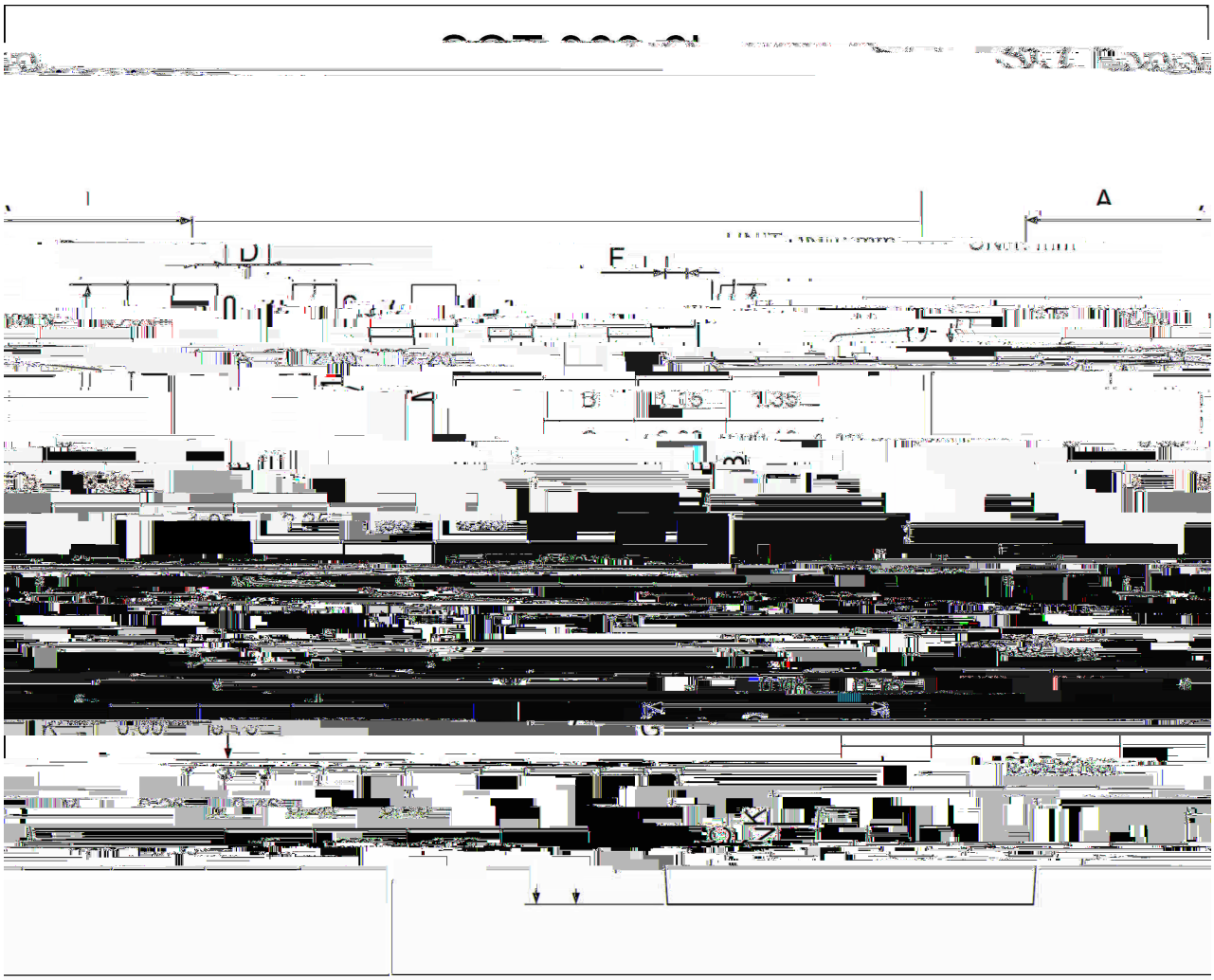
C_{ob} - V_{CB}


20
10
5
3
1
I E =0
1
2
5
10
20
50

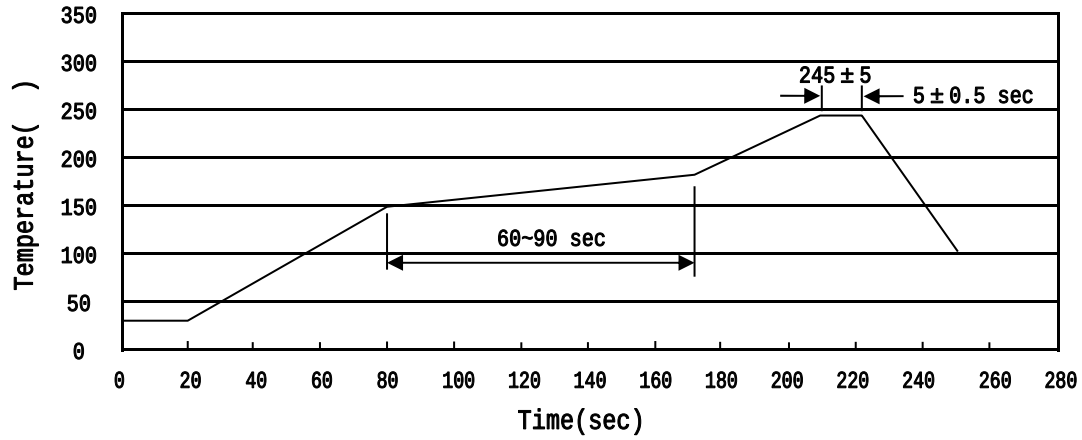

-50
-100
0.5


1k
-10
50
30
-10
-30
-100
-0.1
-0.3
-1
-3


20
10
f=1MHz
5
-100
-200
-1
-3
-10
-30



Temperature Profile for IR Reflow Soldering(Pb-Free)



		Note:	
1	150 180 60 90sec;	1.Preheating:150~180 , 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.	

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

/ REEL

Package Type	Units					Dimension		(unit mm³)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-363	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205