

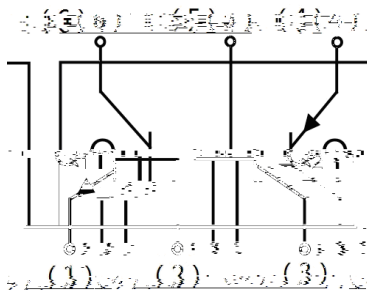
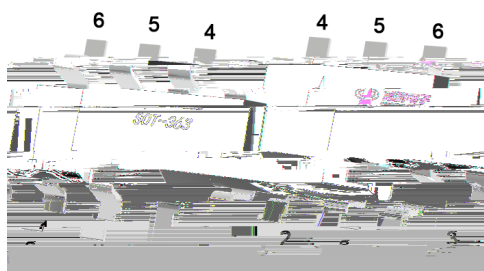
Rev.B Aug.-2023

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

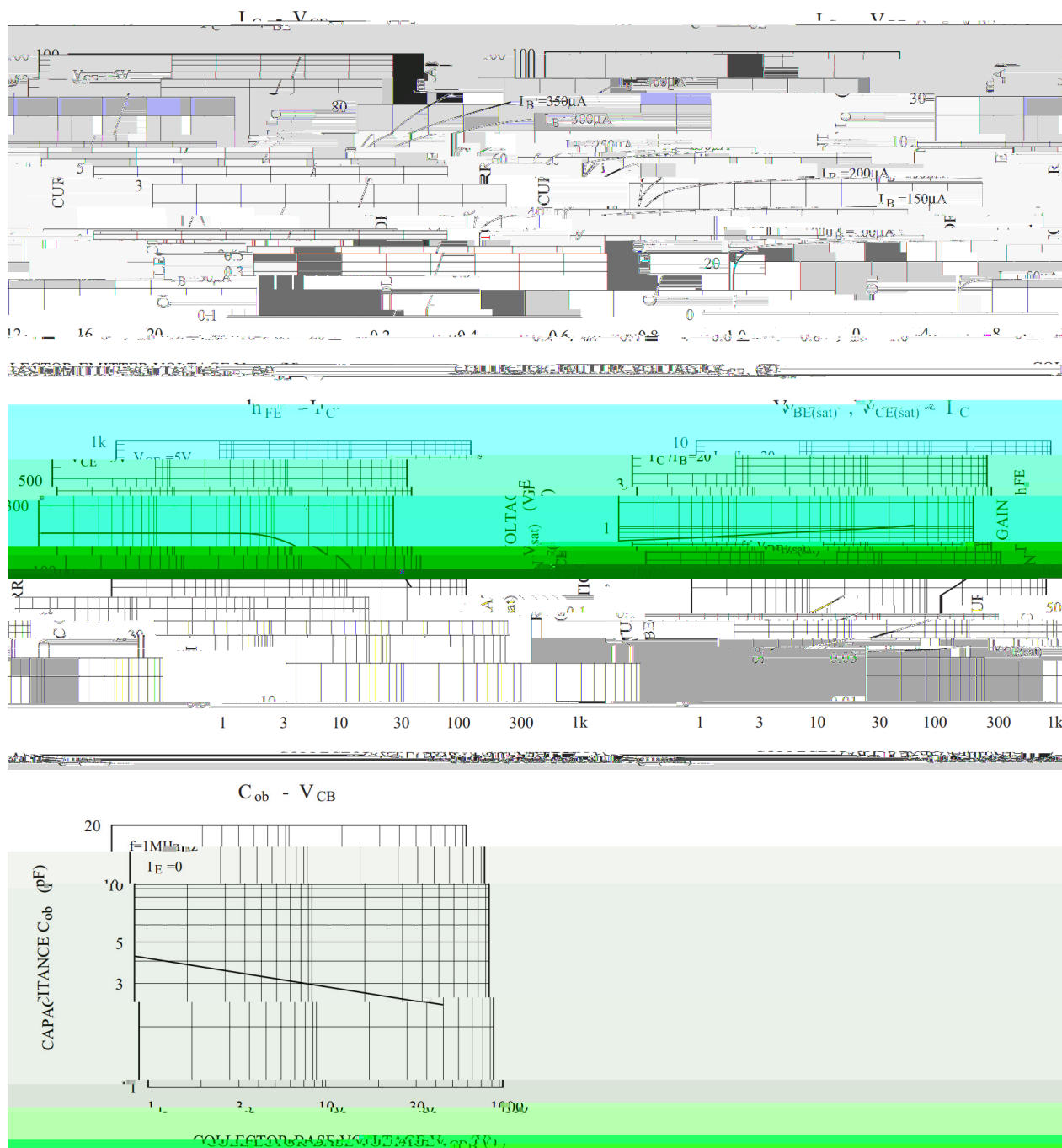
PIN 3 6 Collector

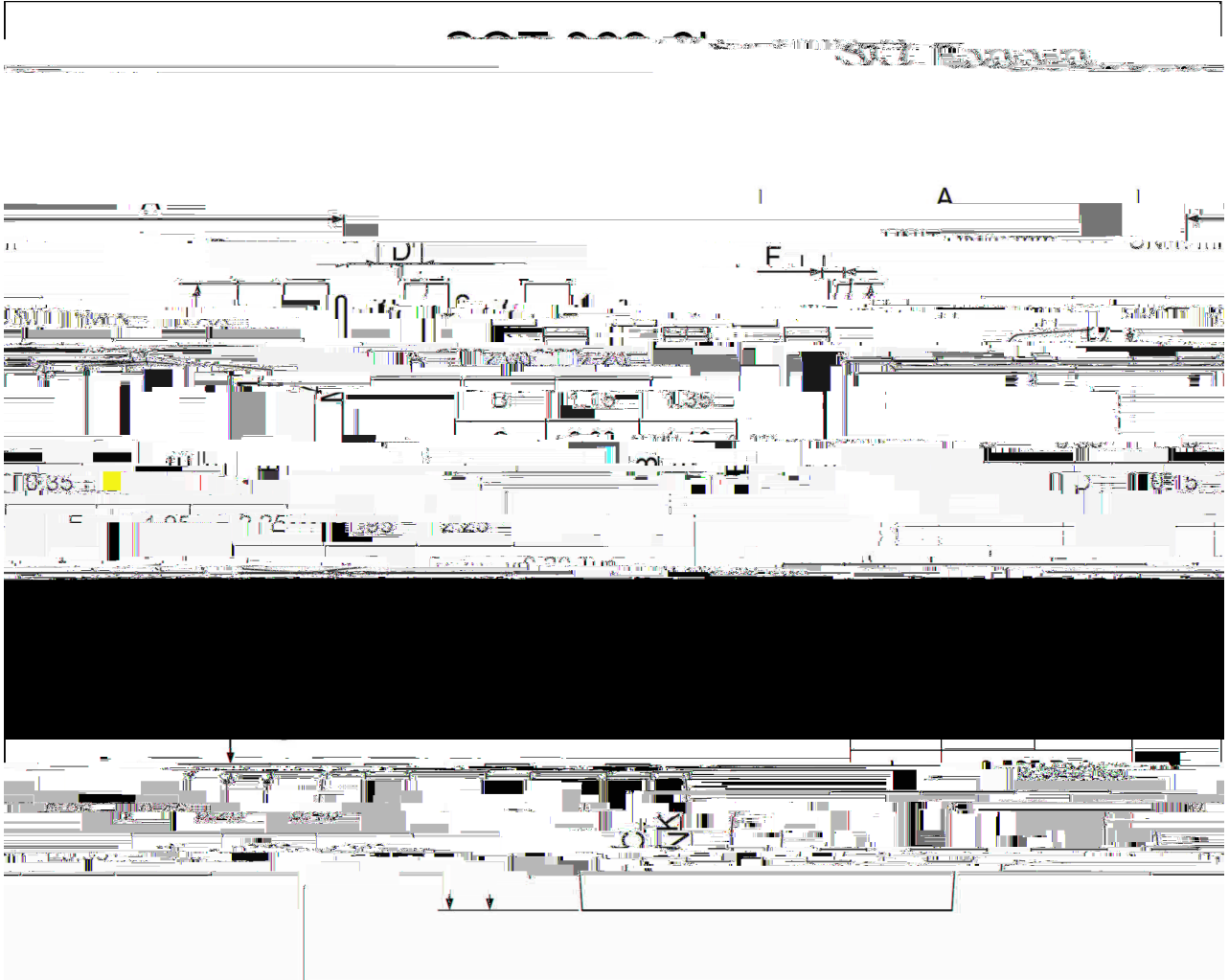
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	100	mA
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

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	

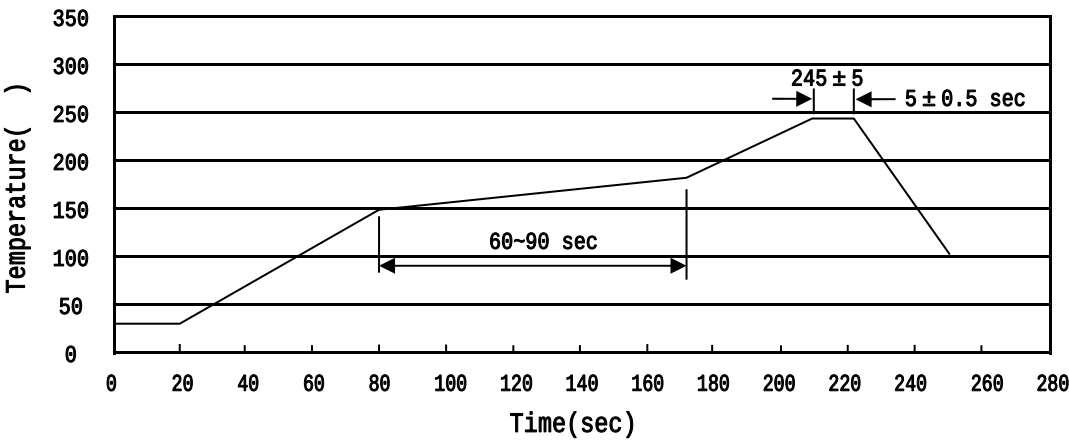
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30V$ $I_E=0$			15	nA
		$V_{CB}=30V$ $I_E=0$			5	μA
		$T_J=150$				
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=6.0V$ $I_C=0$			100	nA
DC Current Gain	h_{FE}	$V_{CE}=5.0V$ $I_C=2.0mA$	200		450	
Collector-Emitter Saturation 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}	$V_{CB}=10V$ $f=1.0MHz$ $I_E=I_{E0}=0A$		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	μA
DC Current Gain Collector	h_{FE}	$V_{CE}=-5.0V$ $I_C=-2.0mA$	200		450	





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 mm ³)		
	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