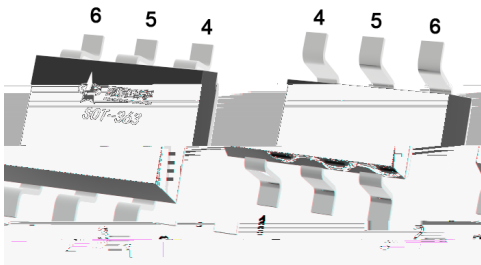
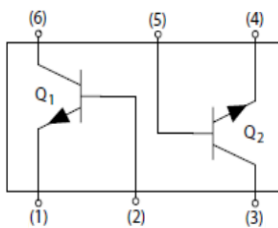


Rev.E Jul.-2023

SOT-363 NPN Double silicon NPN transistor in a SOT-363 Plastic Package.

， BRDBC857
 High voltage, complementary pair with BRDBC857,HF Product.

General purpose high voltage amplifier.



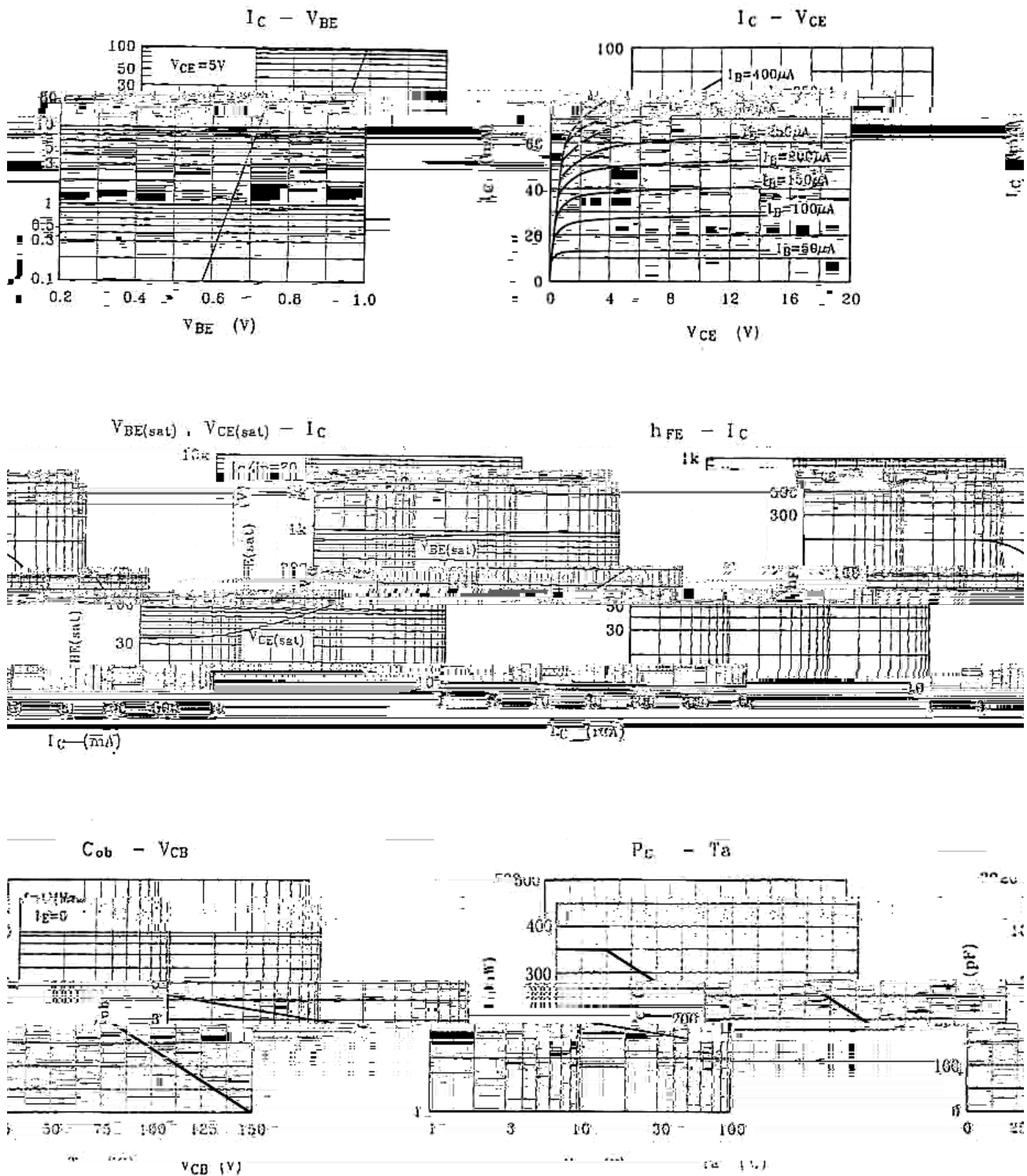
PIN 1 4 Emitter

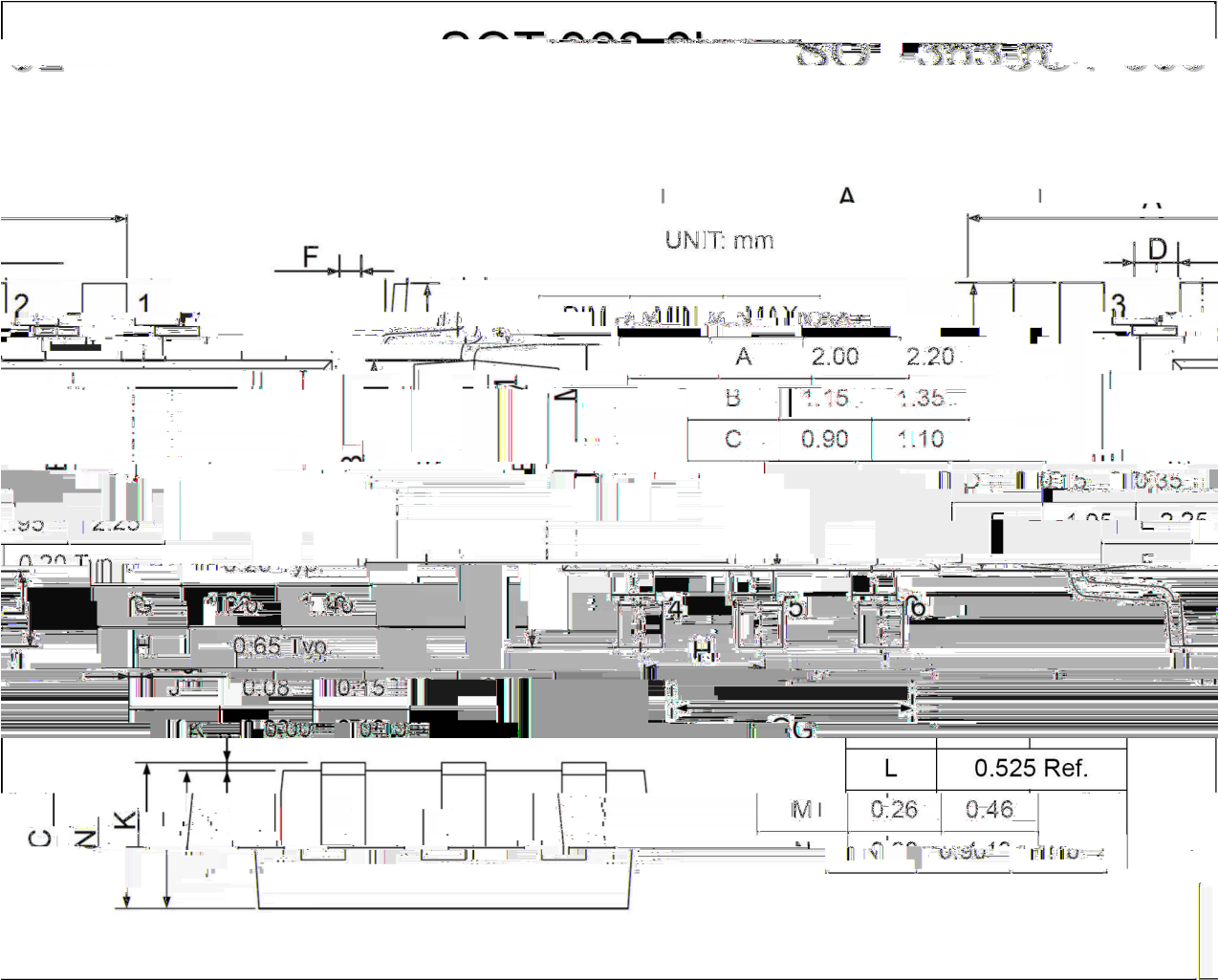
PIN 2 5 Base

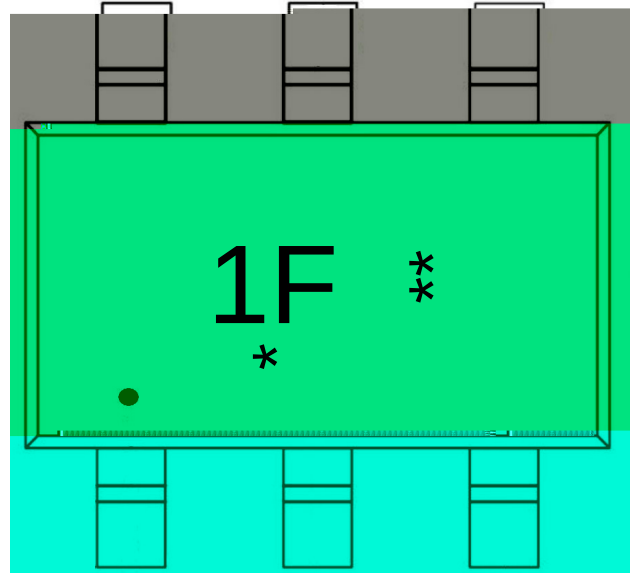
PIN 3 6 Collector

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	I_C	100	mA
Total Package Dissipation	P_D	380	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	328	/W
Junction Temperature	T_j	-55~+150	
Storage Temperature Range	T_{stg}	-55~+150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	V_{CBO}	$I_C = 10\mu A$ $I_E = 0$	50			V
Collector-Emitter Breakdown Voltage	V_{CEO}	$I_C = 10mA$ $I_B = 0$	45			V
Emitter-Base Breakdown Voltage	V_{EBO}	$I_E = 10\mu A$ $I_C = 0$	6.0			V
Collector-Emitter Breakdown Voltage	V_{CES}	$I_C = 10\mu A$ $V_{EB} = 0$	50			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = 30V$ $I_E = 0$			15	nA
		$V_{CB} = 30V$ $I_E = 0$ $T_A = 150^\circ C$			5.0	μA
DC Current Gain	h_{FE}	$V_{CE} = 5.0V$ $I_C = 2.0mA$	110		800	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10mA$ $I_B = 0.5mA$			0.25	V
		$I_C = 100mA$ $I_B = 5.0mA$			0.60	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10mA$ $I_B = 0.5mA$		0.70		V
		$I_C = 100mA$ $I_B = 5.0mA$		0.90		V
Base-Emitter Voltage	$V_{BE(on)}$	$I_C = 2.0mA$ $V_{CE} = 5.0V$	580	660	700	mV
		$I_C = 10mA$ $V_{CE} = 5.0V$			770	mV
Transition Frequency	f_T	$V_{CE} = 5.0V$ $I_C = 10mA$ $f = 100MHz$	100			MHz
Output Capacitance	C_{ob}	$V_{CB} = 10V$ $f = 1.0MHz$			4.5	pF
Noise Figure	NF	$I_C = 0.2mA$ $V_{CE} = 5.0V$ $R_S = 2.0k\Omega$ $f = 1.0kHz$ $BW = 200Hz$			10	dB







● “ 1 ”

1

F h_{FE}

Note:

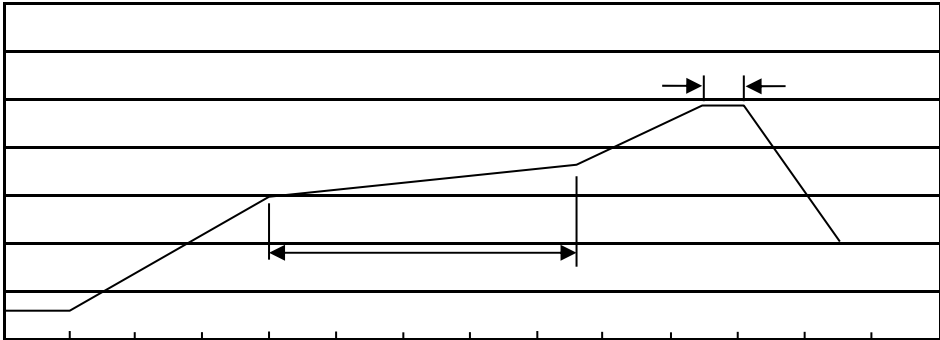
● “ 1 ” Pin

1 Product Type Code

F h_{FE} Classifications Symbol Code

*** Lot No. Code, code change with Lot No

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