/ Descriptions

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

/ Features

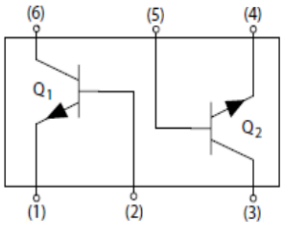
, BRDBC856WS

High voltage, complementary pair with BRDBC856WS, HF Product.

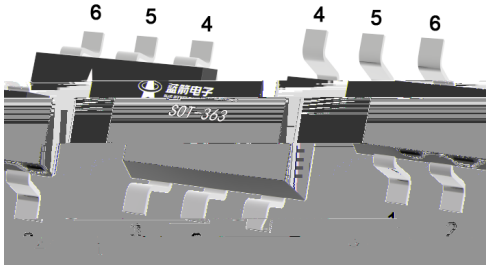
/ Applications

General purpose high voltage amplifier.

/ Equivalent Circuit



/ Pinning



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

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	A	B
h_{FE} Range	110 220	200 450
Marking	1A	1B

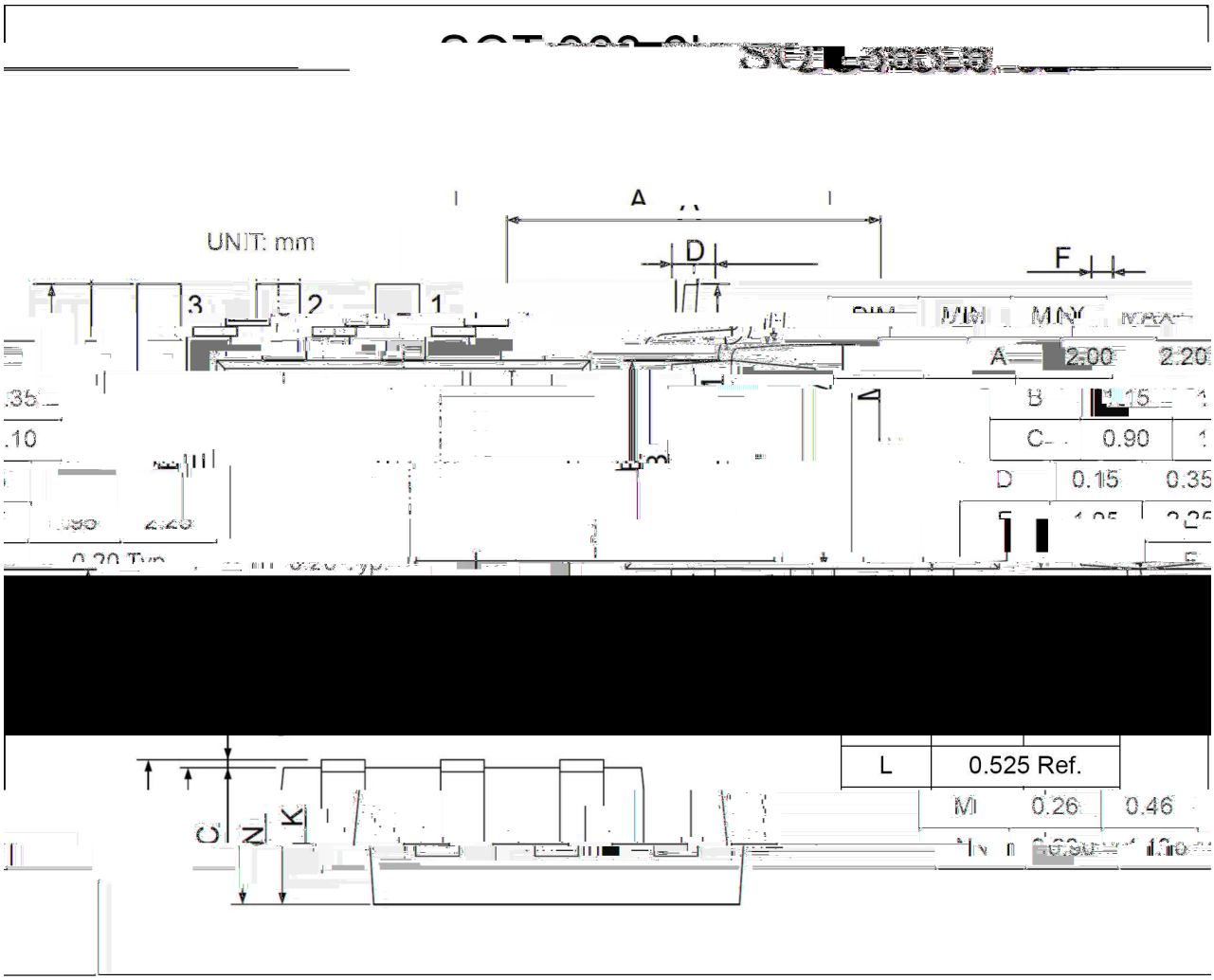
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	80	V
Collector to Emitter Voltage	V_{CEO}	65	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	100	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

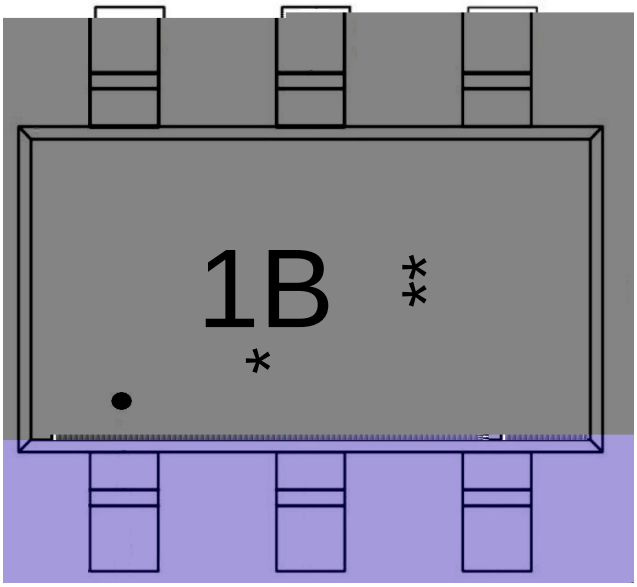
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector−Base Breakdown Voltage	V_{CBO}	I_C =10μA I_E=0	80			V
Collector−Emitter Breakdown Voltage	V_{CEO}	I_C =10mA I_B = 0	65			V
Emitter−Base Breakdown Voltage	V_{EBO}	I_E =10μA I_C = 0	6.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=30V I_E=0			15	nA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=5V I_C=0			500	nA
DC Current Gain	h_{FE}	V_{CE}=5.0V I_C=2.0mA	110		450	
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	I_C=10mA I_B=0.5mA			0.1	V
	$V_{CE(sat)(2)}$	I_C=100mA I_B=5.0mA			0.3	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=10mA I_B=0.5mA		0.77		V
Transition Frequency	f_T	V_{CB}=5.0V I_E=10mA f=100MHz	100			MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V I_E=0 f=1.0MHz			1.5	pF

/ Package Dimensions



/ Marking Instructions

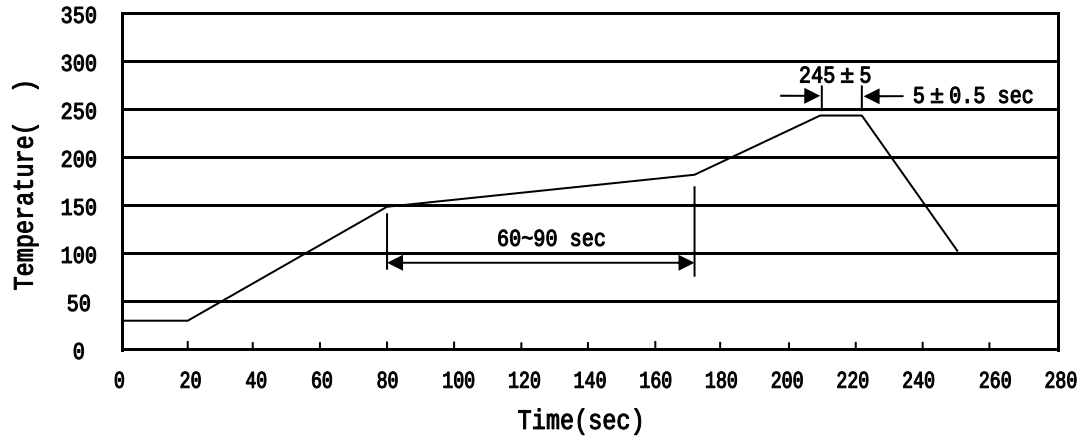


●	“ 1 ”
1	
B	h_{FE}
***	

Note:

●	“ 1 ” Pin
1	Product Type Code
B	h_{FE} Classifications Symbol Code
***	Lot No. Code, code change with Lot No

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



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.

Note:

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ 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

/ Notices