

/ Descriptions

SOT-323 PNP Silicon PNP transistor in a SOT-323 Plastic Package.

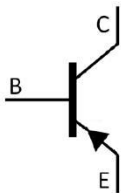
/ Features

BC847W
High current, low voltage complementary pair with BC847W,HF Product.

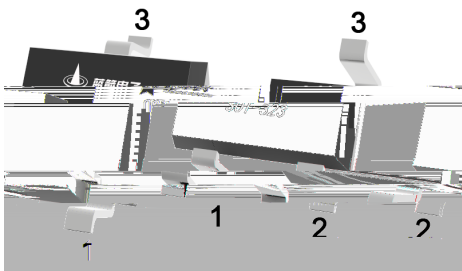
/ Applications

General purpose switching and amplification.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h _{FE} Classifications Symbol	A	B	C
h _{FE} Range	125 250	220 475	420 800
Marking	H3E	H3F	H3G

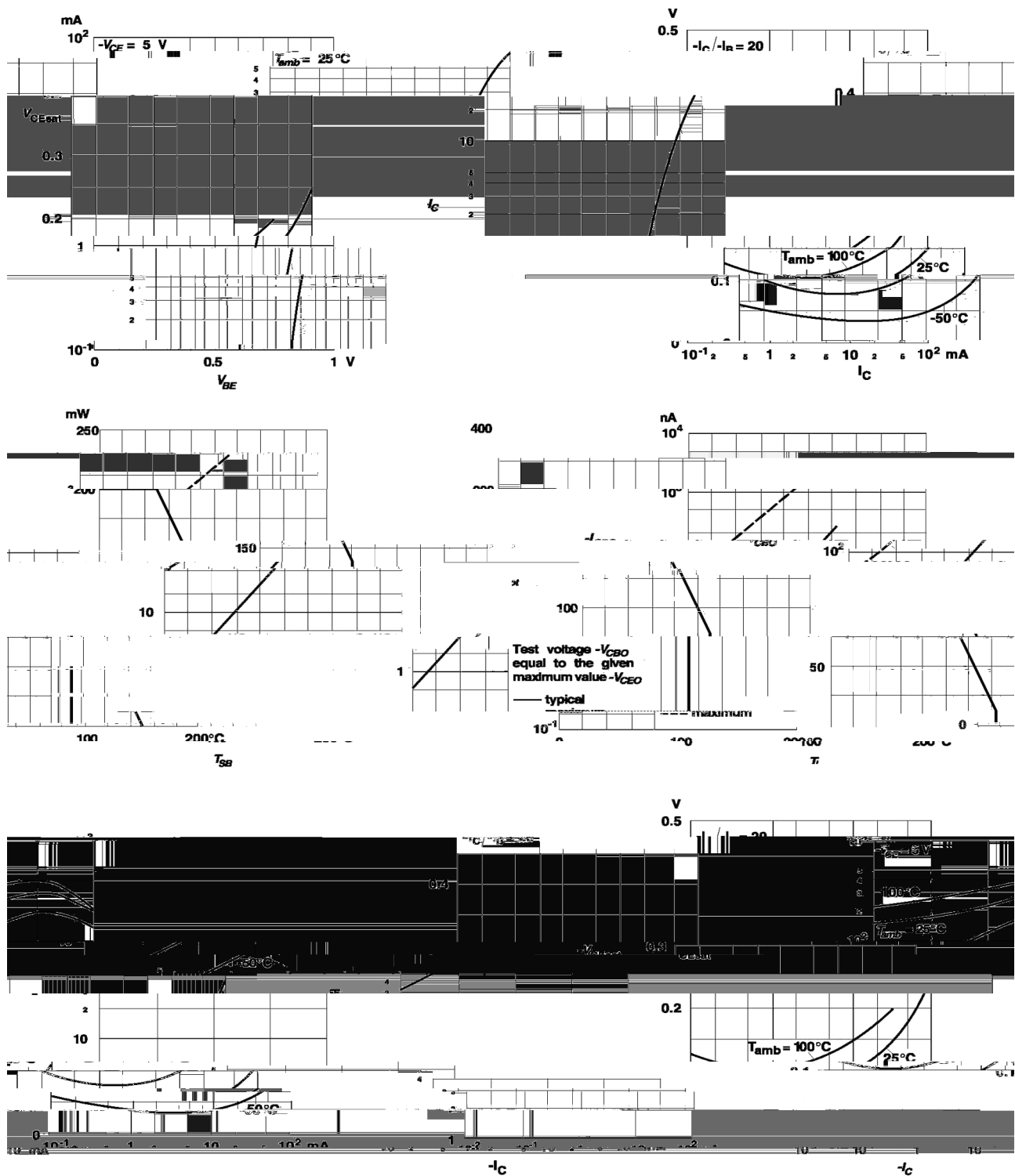
/ Absolute Maximum Ratings(Ta=25)

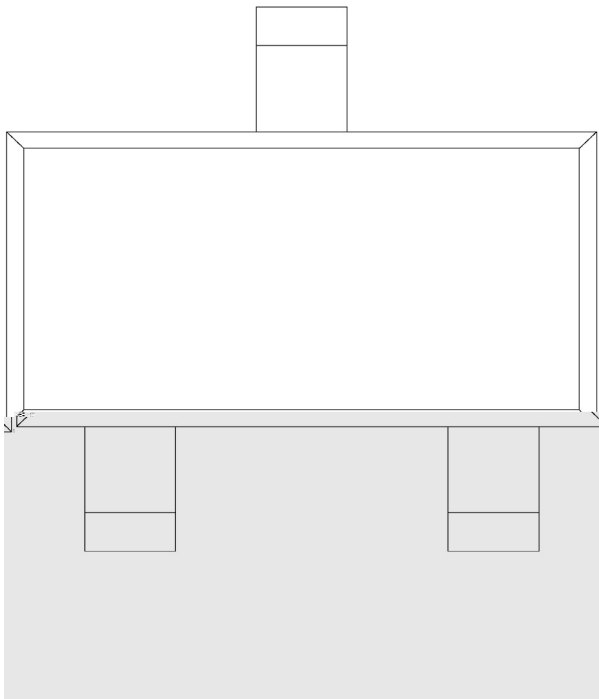
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-50	V
Collector to Emitter Voltage	V_{CEO}	-45	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-100	mA
Peak Collector Current - Continuous	I_{CM}	-200	mA
Peak Base Current	I_{BM}	-200	mA
Collector Power Dissipation	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 Cut-Off Current	I_{CBO}	$V_{CB}=-30V$ $I_E=0$			-4.0	A
Emitter to Base Current	I_{EBO}	$V_{EB}=-5.0V$ $I_C=0$			-0.1	A
DC Current Gain	h_{FE}	$V_{CE}=-5.0V$ $I_C=-2.0mA$	125		800	
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=-10mA$ $I_B=-0.5mA$		-0.075	-0.3	V
	$V_{CE(sat)(2)}$	$I_C=-100mA$ $I_B=-5.0mA$		-0.25	-0.6	V
Base to Emitter Saturation Voltage	$V_{BE(sat)(1)}$	$I_C=-10mA$ $I_B=-0.5mA$		-0.7		V
	$V_{BE(sat)(2)}$	$I_C=-100mA$ $I_B=-5.0mA$		-0.85		V
Base to Emitter Voltage	$V_{BE(1)}$	$V_{CE}=-5.0V$ $I_C=-2.0mA$	-0.6	-0.65	-0.75	V
	$V_{BE(2)}$	$V_{CE}=-5.0V$ $I_C=-10mA$			-0.82	V
Transition Frequency	f_T	$V_{CE}=-5.0V$ $I_C=-10mA$ $f=100MHz$	100			MHz
Collector Capacitance	C_C	$V_{CB}=-10V$ $I_E=I_C=0$ $f=1.0MHz$			3.0	pF
Emitter Capacitance	C_e	$V_{EB}=-0.5V$ $I_C=I_E=0$ $f=1.0MHz$			12	pF
Noise Figure	NF	$I_C=-200 A$ $R_S=2K$ $B=200Hz$ $V_{CE}=-5.0V$ $f=1.0KHz$			10	dB

/ Electrical Characteristic Curve





() / 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. |

/ 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 mm ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-323	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices