2SB647(A)T

Rev.A May.-2016

DATA SHEET

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol		Rating	Unit
Collector to Base Voltage	V_{CBO}		-120	V
Collector to Emitter Voltage	V_{CEO}	2SB647T	-80	V
		2SB647AT	-100	
Emitter to Base Voltage	V_{EBO}		-5.0	V
Collector Current (DC)	I_C		-1.0	A
Collector Current(Pulse)	I_{CP}		-2.0	A
Collector Power Dissipation	P_C		500	mW
Collector Power Dissipation*	$*P_C$		1.0	W
Junction Temperature	T_j		150	
Storage Temperature Range	T_{stg}		-55 150	

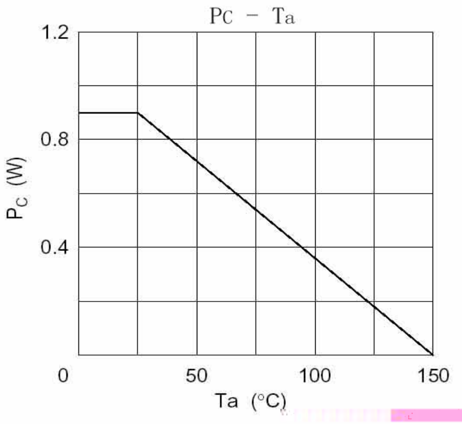
*:mounted on ceramic substrate(250mm^2×0.8t).

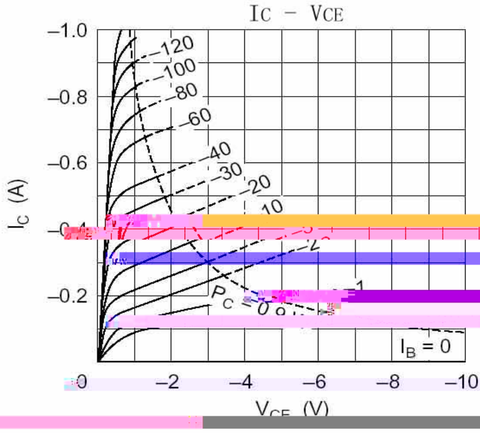
* 250mm^2×0.8t

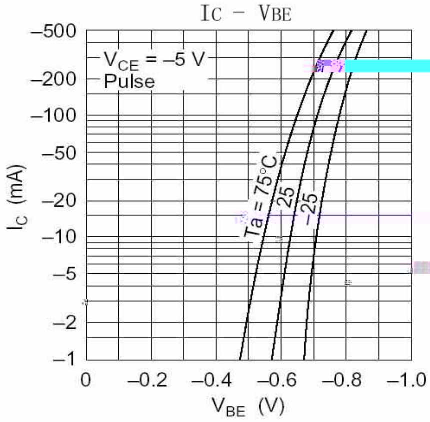
/ Electrical Characteristics(Ta=25)

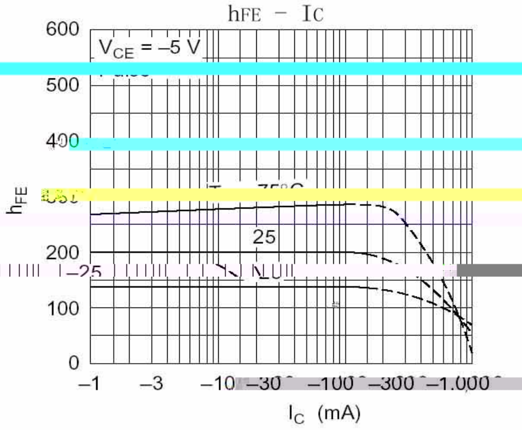
Parameter	Symbol		Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}		I_C=-10 A I_E=0	-120			V
Collector to Emitter Breakdown Voltage	V_{CEO}	2SB647T	I_C=-1.0mA R_{BE}=	-80			V
		2SB647AT		-100			
Emitter to Base Breakdown Voltage	V_{EBO}		I_E=-10 A I_C=0	-5.0			V
Collector Cut-Off Current	I_{CBO}		V_{CB}=-100V I_E=0			-10	A
DC Current Gain	$h_{FE(1)}$		V_{CE}=-5.0V I_C=-150mA	60		320	
	$h_{FE(2)}$		V_{CE}=-5.0V I_C=-500mA	30			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$		I_C=-500mA I_B=-50mA			-1.0	V
Base to Emitter Voltage	V_{BE}		V_{CE}=-5.0V I_C=-150mA			-1.5	V
Transition Frequency	f_T		V_{CE}=-5.0V I_C=-150mA		140		MHz
Collector Output Capacitance	C_{ob}		V_{CB}=-10V I_E=0 f=1.0MHz		12		pF

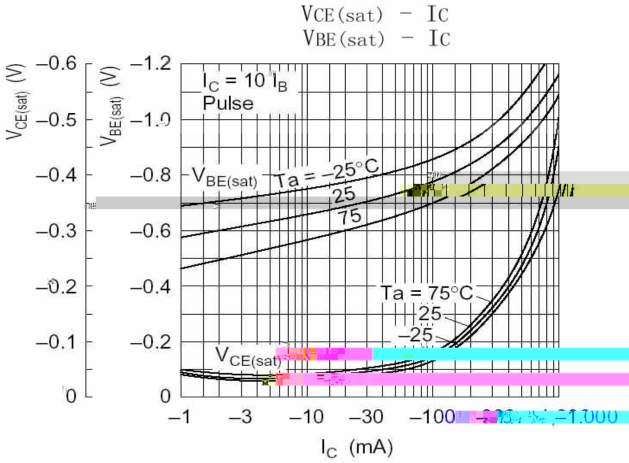
/   Electrical Characteristic Curve

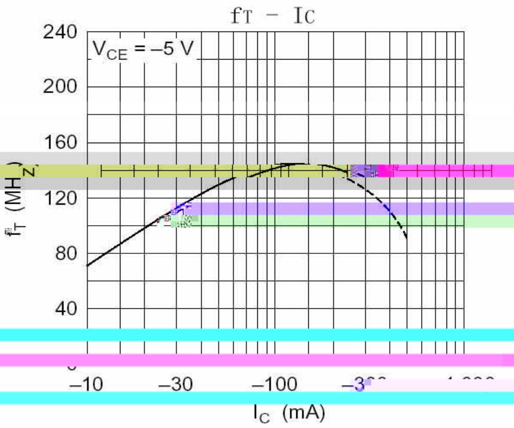






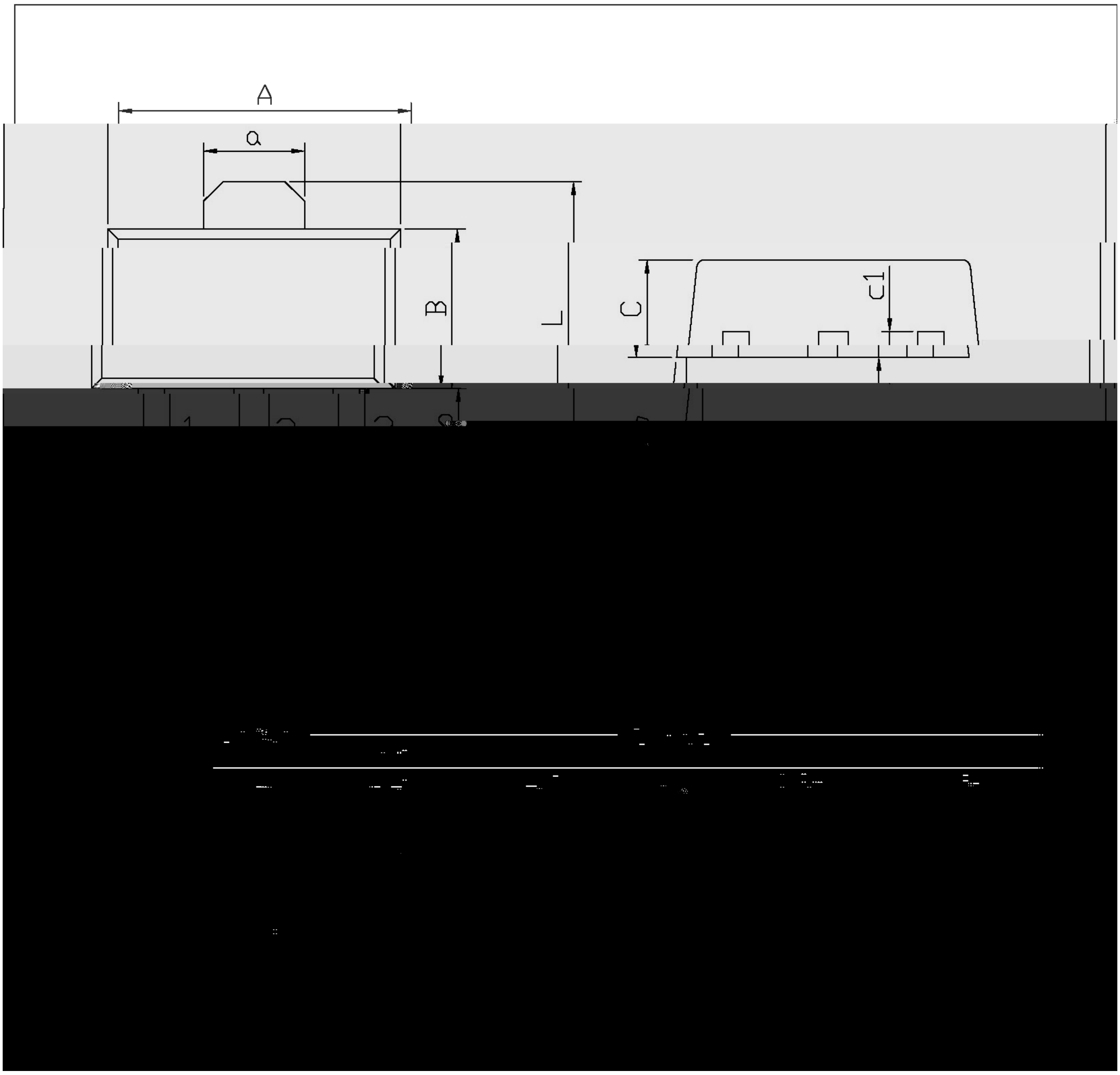




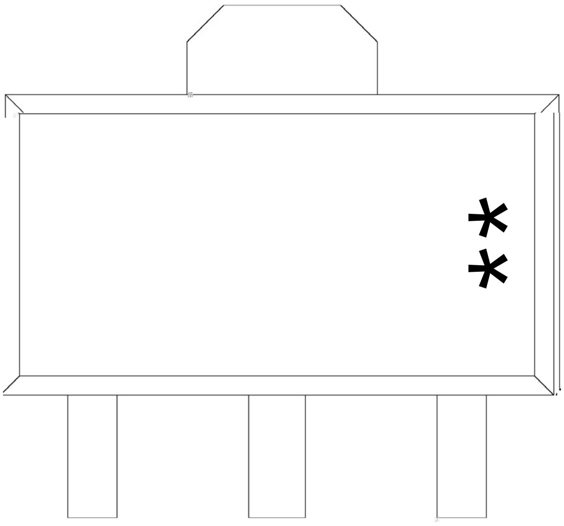


/ Package Dimensions

SOT-89 单位：mm



/ Marking Instructions



H:

47

B: h_{FE}

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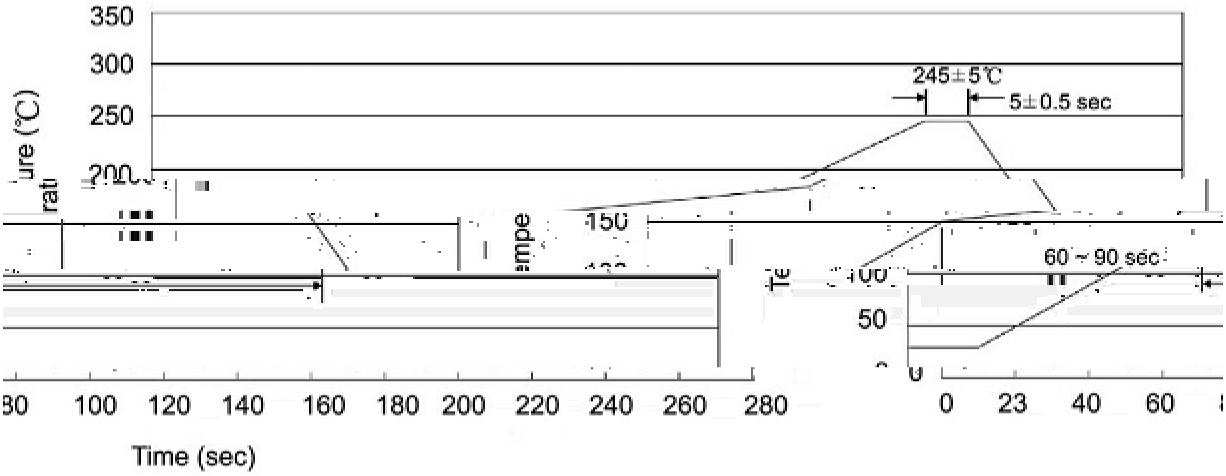
Note:

H:	Company Code.
47:	Product Type.
B:	h_{FE} Classifications Symbol
****:	Lot No. Code,code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)



	Note:
1 25 150 60 90sec;	1.Preheating:25~150 , 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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm^3)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-89	1,000	7	7,000	8	56,000	7 ×12	180×120×180	385×257×392

/ Notices