



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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2SB815/2SD1048

Bipolar Transistor (-)15V, (-)0.7A, Low VCE(sat), (PNP)NPN Single CP

ON Semiconductor®

<http://onsemi.com>

Features

- Ultrasmall package allows miniaturization in end products
- Large current capacity (IC=0.7A) and low-saturation voltage

Specifications () : 2SB815

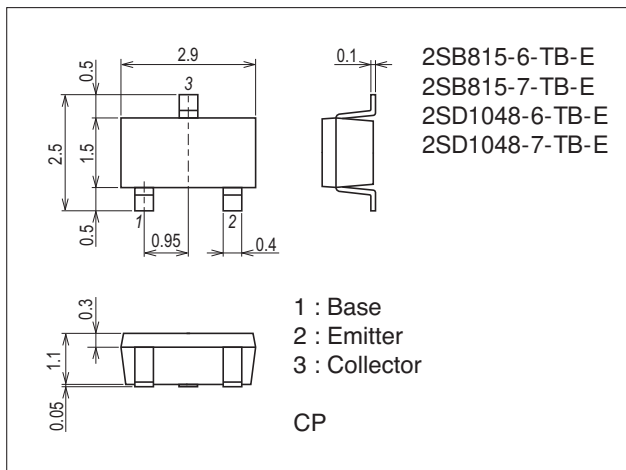
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector to Base Voltage	V _{CBO}		(-)20	V
Collector to Emitter Voltage	V _{CEO}		(-)15	V
Emitter to Base Voltage	V _{EBO}		(-)5	V
Collector Current	I _C		(-)0.7	A
Collector Current (Pulse)	I _{CP}		(-)1.5	A
Collector Dissipation	P _C		200	mW
Junction Temperature	T _j		125	°C
Storage Temperature	T _{stg}		-55 to +125	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

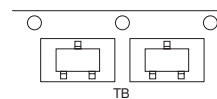
unit : mm (typ)
7013A-009



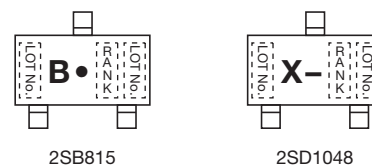
Product & Package Information

- Package : CP
- JEITA, JEDEC : SC-59, TO-236, SOT-23, TO-236AB
- Minimum Packing Quantity : 3,000 pcs./reel

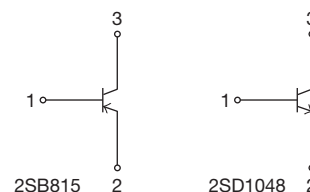
Packing Type: TB



Marking



Electrical Connection



2SB815 / 2SD1048

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	ICBO	V _{CB} =(-)15V, I _E =0A			(-)0.1	A
Emitter Cutoff Current	IEBO	V _{EB} =(-)4V, I _C =0A			(-)0.1	A
DC Current Gain	h _{FE1}	V _{CE} =(-)2V, I _C =(-)50mA	200*		600*	
	h _{FE2}	V _{CE} =(-)2V, I _C =(-)500mA	80			
Gain-Bandwidth Product	f _T	V _{CE} =(-)10V, I _C =(-)50mA		250		MHz
Output Capacitance	C _{ob}	V _{CB} =(-)10V, f=1MHz		(13)8		pF
Collector to Emitter Saturation Voltage	V _{CE(sat)1}	I _C =(-)5mA, I _B =(-)0.5mA		(-15)10	(-35)25	mV
	V _{CE(sat)2}	I _C =(-)100mA, I _B =(-)10mA		(-60)30	(-120)80	mV

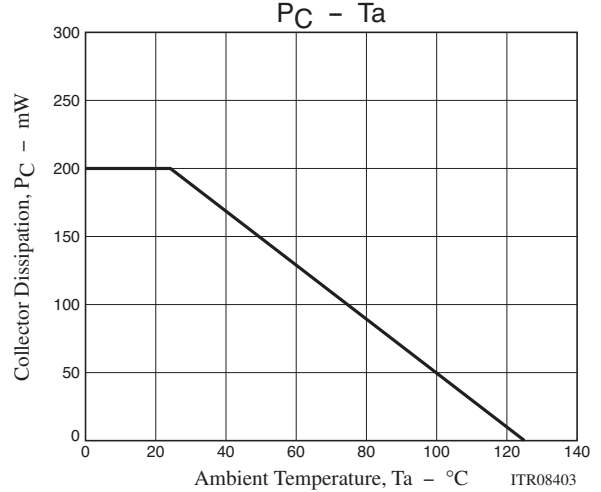
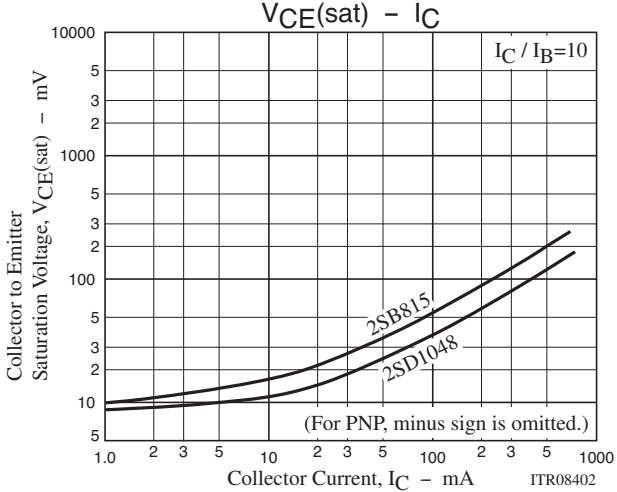
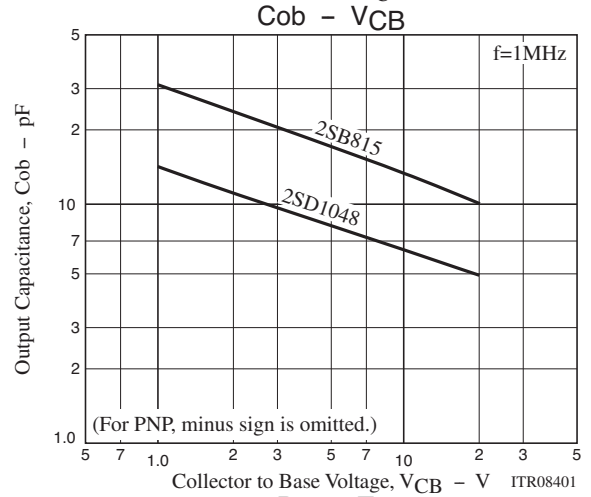
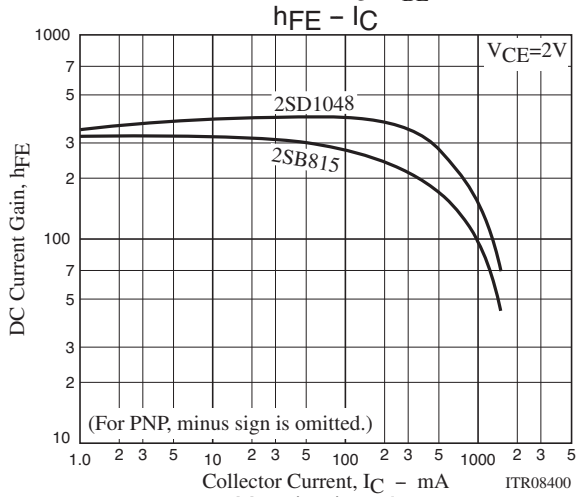
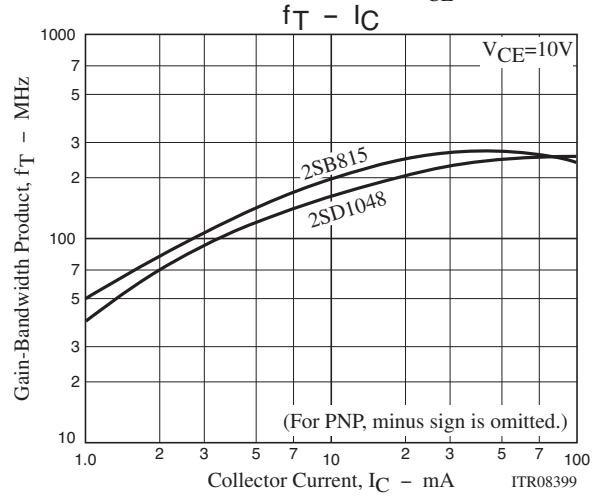
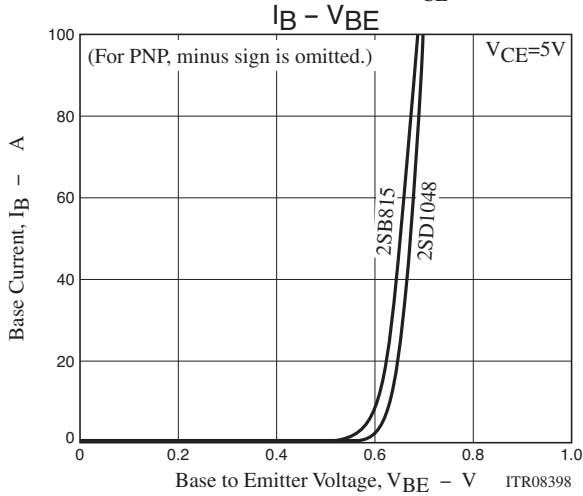
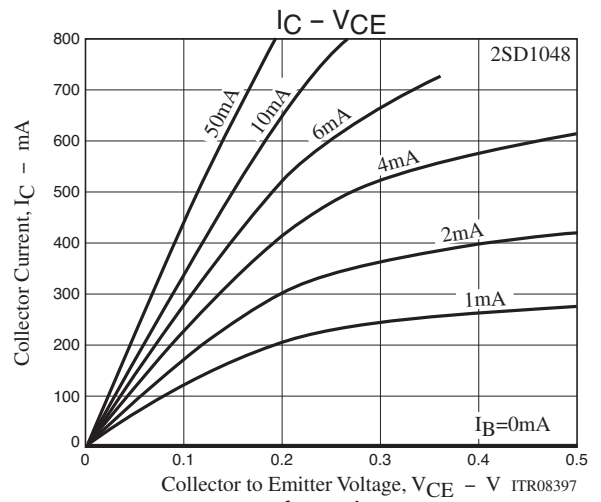
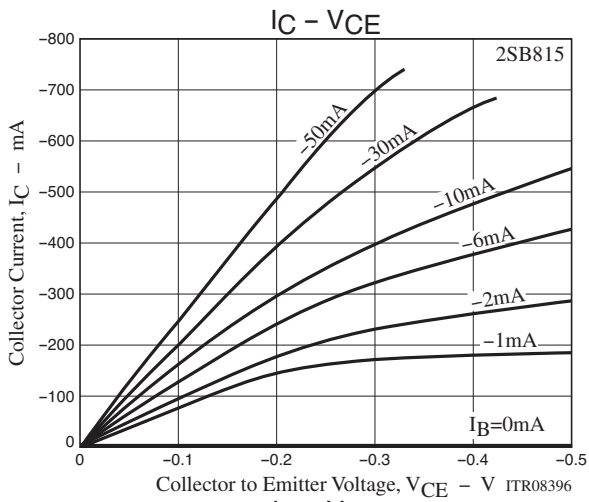
* : The 2SB815/2SD1048 are classified by 50mA h_{FE} as follows :

Rank	6	7
h _{FE}	200 to 400	300 to 600

Ordering Information

Device	Package	Shipping	memo
2SB815-6-TB-E	CP	3,000pcs./reel	Pb Free
2SB815-7-TB-E	CP	3,000pcs./reel	
2SD1048-6-TB-E	CP	3,000pcs./reel	
2SD1048-7-TB-E	CP	3,000pcs./reel	

2SB815 / 2SD1048

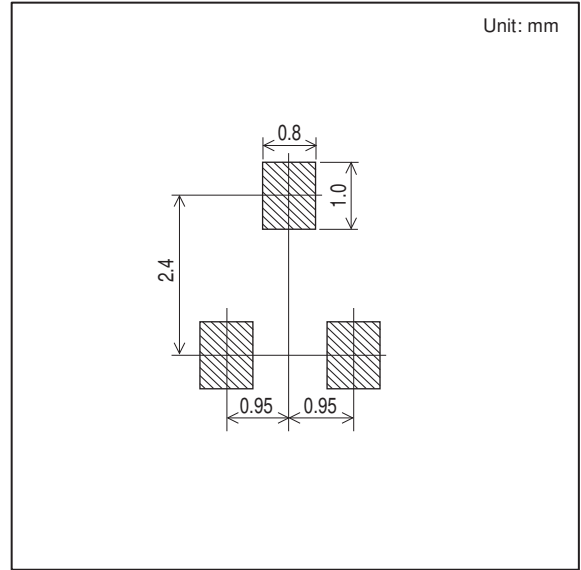
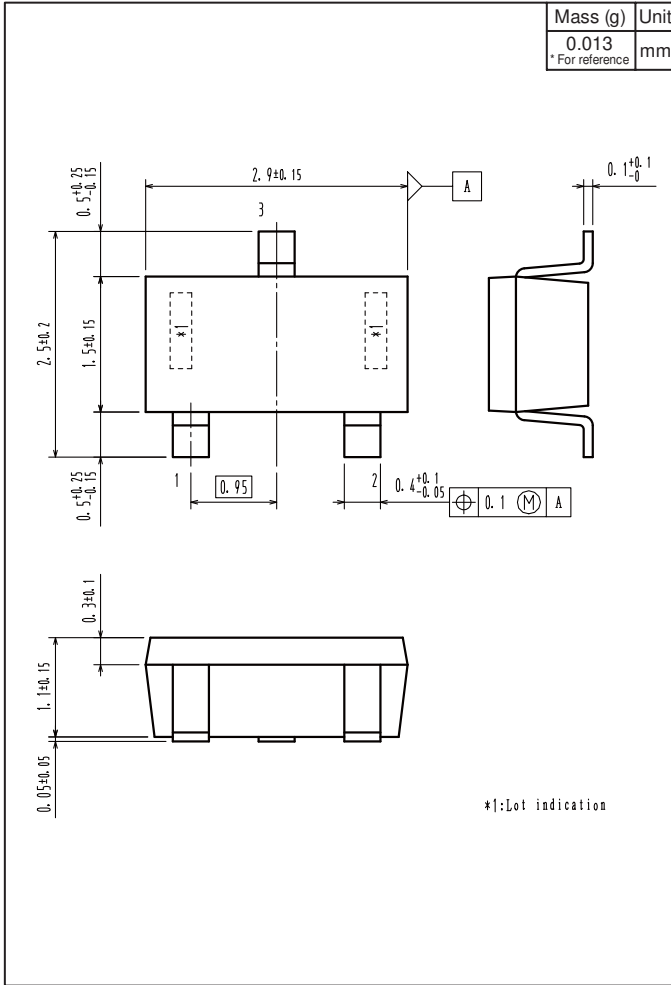


2SB815 / 2SD1048

Outline Drawing

Land Pattern Example

2SB815-6-TB-E, 2SB815-7-TB-E, 2SD1048-6-TB-E, 2SD1048-7-TB-E



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