

Continued from preceding page.

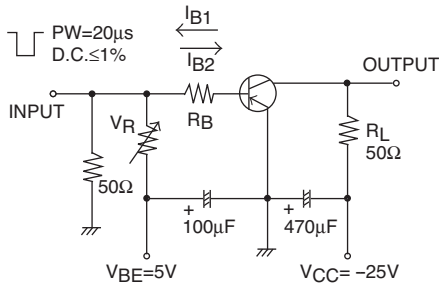
Parameter	Symbol	Conditions	Ratings	Unit
Collector Dissipation	PC	When mounted on ceramic substrate (250mm <sup>2</sup> ×0.8mm)	1.3	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

**Electrical Characteristics at Ta=25°C**

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	ICBO	V <sub>CB</sub> =-50V, I <sub>E</sub> =0A			-100	nA
Emitter Cutoff Current	IEBO	V <sub>EB</sub> =-4V, I <sub>C</sub> =0A			-100	nA
DC Current Gain	h <sub>FE</sub> 1	V <sub>CE</sub> =-2V, I <sub>C</sub> =-100mA	140*		400*	
	h <sub>FE</sub> 2	V <sub>CE</sub> =-2V, I <sub>C</sub> =-1A	30			
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =-10V, I <sub>C</sub> =-50mA		150		MHz
Output Capacitance	Cob	V <sub>CB</sub> =-10V, f=1MHz		12		pF
Collector to Emitter Saturation Voltage	V <sub>CE</sub> (sat)	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA		-180	-500	mV
Base to Emitter Saturation Voltage	V <sub>BE</sub> (sat)	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA		-0.9	-1.2	V
Collector to Base Breakdown Voltage	V <sub>(BR)</sub> CBO	I <sub>C</sub> =-10μA, I <sub>E</sub> =0A	-60			V
Collector to Emitter Breakdown Voltage	V <sub>(BR)</sub> CEO	I <sub>C</sub> =-1mA, R <sub>BE</sub> =∞	-50			V
Emitter to Base Breakdown Voltage	V <sub>(BR)</sub> EBO	I <sub>E</sub> =-10μA, I <sub>C</sub> =0A	-5			V
Turn-ON Time	t <sub>on</sub>	See specified Test Circuit.		40		ns
Storage Time	t <sub>stg</sub>			300		ns
Fall Time	t <sub>f</sub>			30		ns

\* : 2SB1122 is classified by 100mA h<sub>FE</sub> as follows :

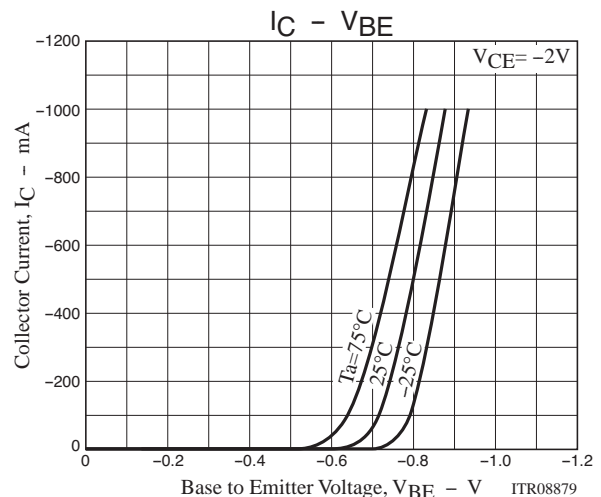
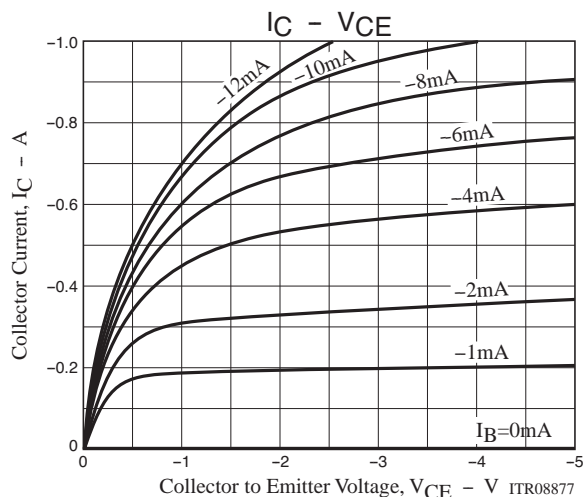
Rank	S	T
h <sub>FE</sub>	140 to 280	200 to 400

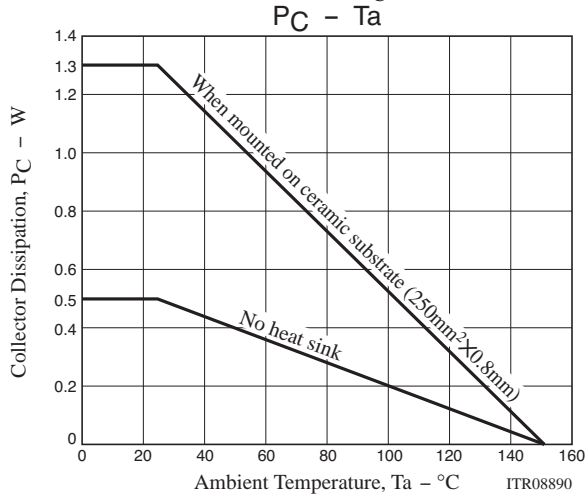
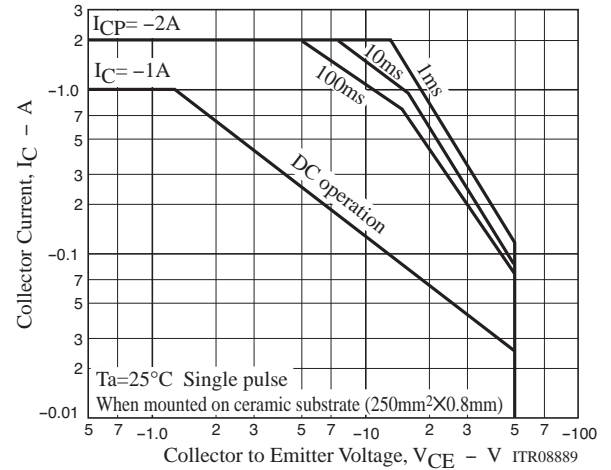
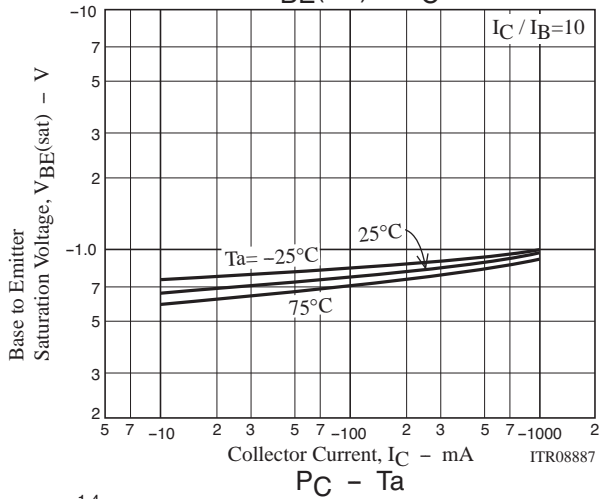
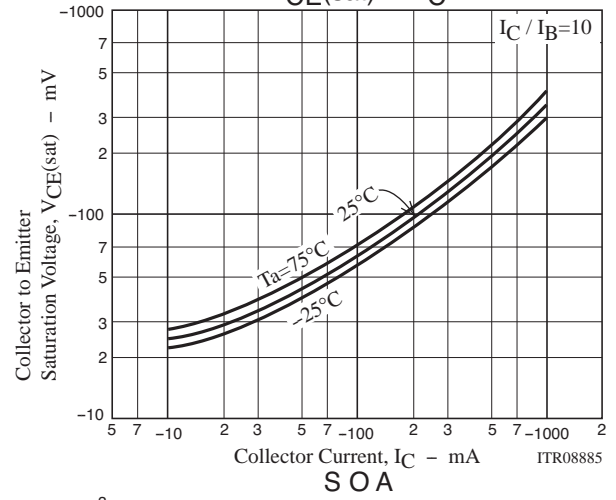
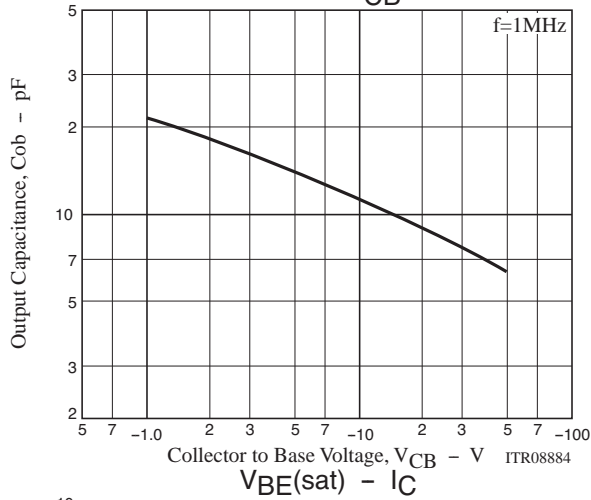
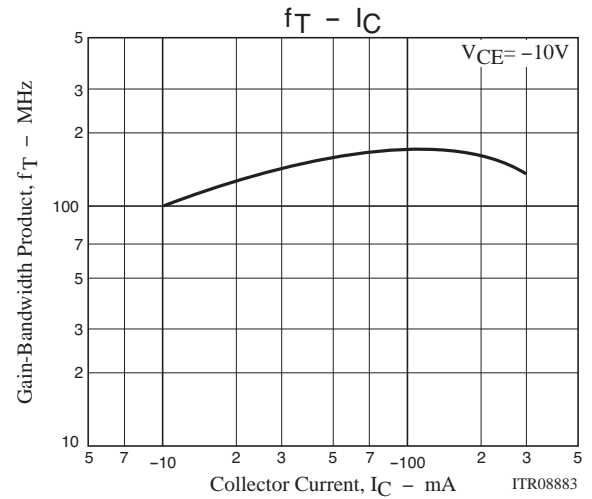
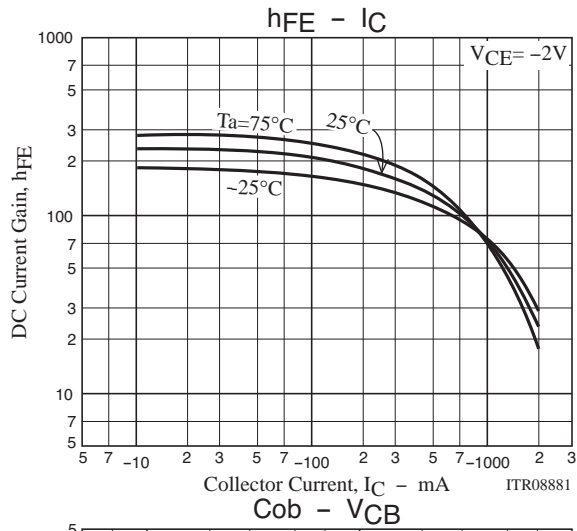
**Switching Time Test Circuit**

$$I_C = 10I_{B1} = -10I_{B2} = -500\text{mA}$$

**Ordering Information**

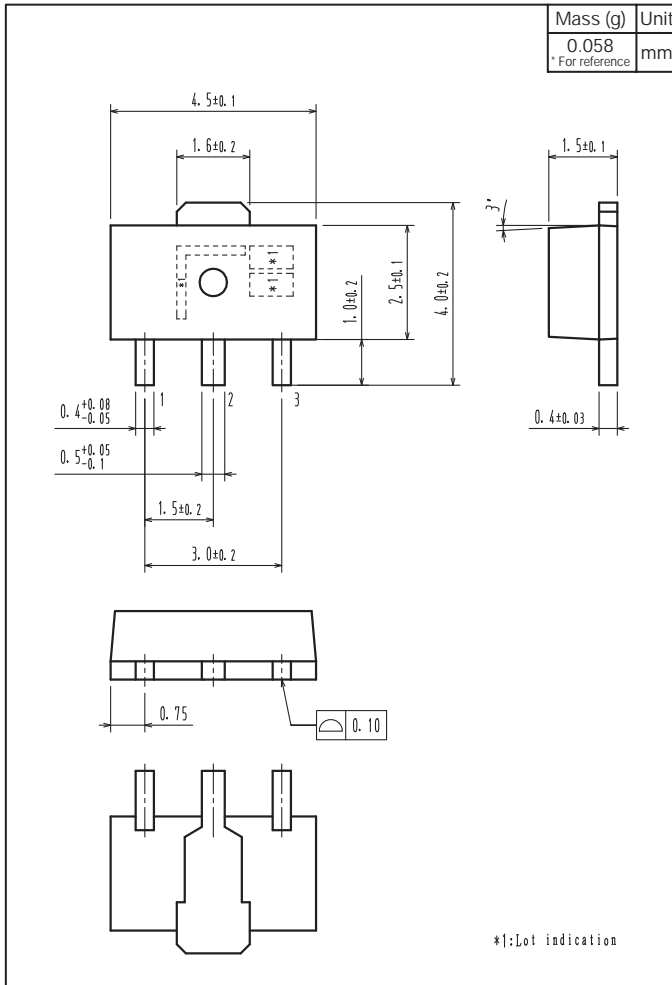
Device	Package	Shipping	memo
2SB1122S-TD-E	PCP	1,000pcs./reel	Pb Free
2SB1122T-TD-E	PCP	1,000pcs./reel	



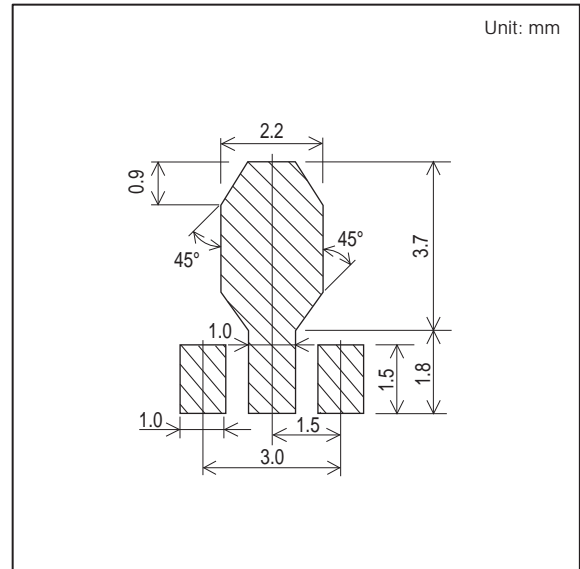


## Outline Drawing

2SB1122S-TD-E, 2SB1122T-TD-E



## Land Pattern Example



ON Semiconductor and the ON logo are registered trademarks of Semiconductor Components Industries, LLC (SCILLC). SCILLC owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of SCILLC's product/patent coverage may be accessed at [www.onsemi.com/site/pdf/Patent-Marking.pdf](http://www.onsemi.com/site/pdf/Patent-Marking.pdf). SCILLC reserves the right to make changes without further notice to any products herein. SCILLC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does SCILLC assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. "Typical" parameters which may be provided in SCILLC data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. SCILLC does not convey any license under its patent rights nor the rights of others. SCILLC products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the SCILLC product could create a situation where personal injury or death may occur. Should Buyer purchase or use SCILLC products for any such unintended or unauthorized application, Buyer shall indemnify and hold SCILLC and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that SCILLC was negligent regarding the design or manufacture of the part. SCILLC is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.