Continued from preceding page.

Parameter	Symbol	Conditions	Ratings	Unit
Collector Dissipation	PC		500	mW
		When mounted on ceramic substrate (250mm ² ×0.8mm)	1.3	W
Junction Temperature	Тј		150	°C
Storage Temperature	Tstg		-55 to +150	°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.

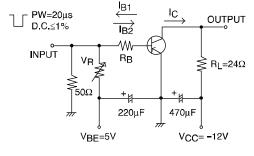
Electrical Characteristics at Ta = 25°C

Parameter	Symbol			Ratings		
		Conditions	min	typ	max	Unit
Collector Cutoff Current	ICBO	V _{CB} =-20V, I _E =0A			-0.1	μΑ
Emitter Cutoff Current	IEBO	V _{EB} =-4V, I _C =0A			-0.1	μΑ
DC Current Gain	hFE1	V _{CE} =-2V, I _C =-100mA	140*		400*	
	hFE2	V _{CE} =-2V, I _C =-1.5A	65			
Gain-Bandwidth Product	fŢ	V _{CE} =-10V, I _C =-50mA		150		MHz
Output Capacitance	Cob	V _{CB} =-10V, f=1MHz		32		pF
Collector to Emitter Saturation Voltage	V _{CE} (sat)	I _C =-1.5A, I _B =-75mA		-0.35	-0.6	V
Base to Emitter Saturation Voltage	V _{BE} (sat)	I _C =-1.5A, I _B =-75mA		-0.85	-1.2	V
Collector to Base Breakdown Voltage	V(BR)CBO	I _C =-10μΑ, I _E =0Α	-30			V
Collector to Emitter Breakdown Voltage	V(BR)CEO	I _C =-1mA, R _{BE} =∞	-25			V
Emitter to Base Breakdown Voltage	V(BR)EBO	I _E =-10μΑ, I _C =0Α	-6			V
Turn-ON Time	ton			60		ns
Storage Time	tstg	See specified Test Circuit		350		ns
Fall Time	tf	1		25		ns

*: The 2SB1121 is classified by 100mA hFE as follows:

Rank	S	Т
h _{FE}	140 to 280	200 to 400

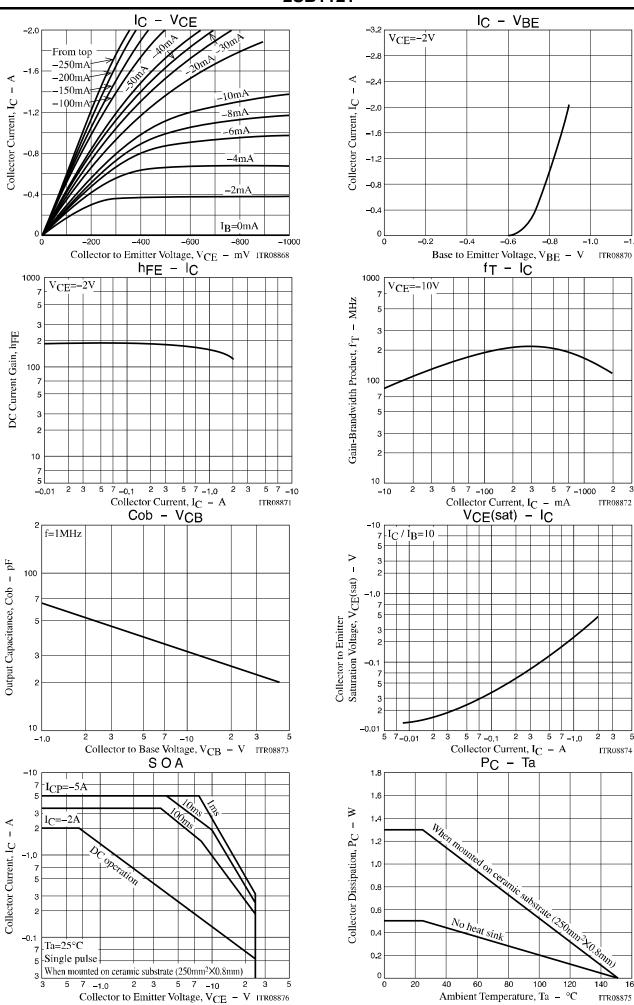
Switching Time Test Circuit



 $I_{C}=20I_{B1}=-20I_{B2}=-0.5A$

Ordering Information

Device	Package	Shipping	Memo
2SB1121S-TD-E 2SB1121T-TD-E	PCP	1,000pcs./reel	Pb-Free



ITR08875

160

140

-1.2

2 3

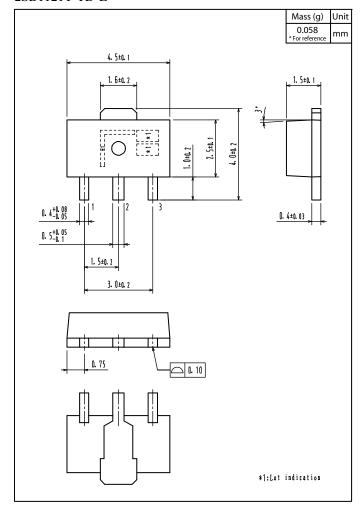
ITR08872

5

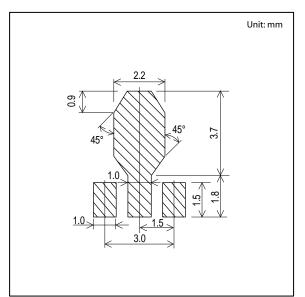
ITR08874

Outline Drawing

2SB1121S-TD-E 2SB1121T-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. 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 "Typical" 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 use, even if such claim alleges that SCILLC was negligent regarding the design or manufacture of the part. SCILLC is an Equal Opportunity/Affimative Action Employeer. This literature is subject to all applicable copyright laws and is not for resale in any manner.