Ordering number : ENA1504A

SBS822

Schottky Barrier Diode
20V, 1A, Low VF Dual MCPH5

ON Semiconductor®
http://onsemi.com

Applications

- High frequency rectification (switching regulators, converters, choppers).

Features

- Low forward voltage (I_F=0.5A, V_F max=0.39V) (I_F=1A, V_F max=0.46V).
- Composite type with 2 low V_F SBDs in one package, facilitating high-density mounting.
- Ultrasmall-size package permitting applied sets to be small and slim (Mounting height 0.85mm).
- Halogen free compliance.

Specifications

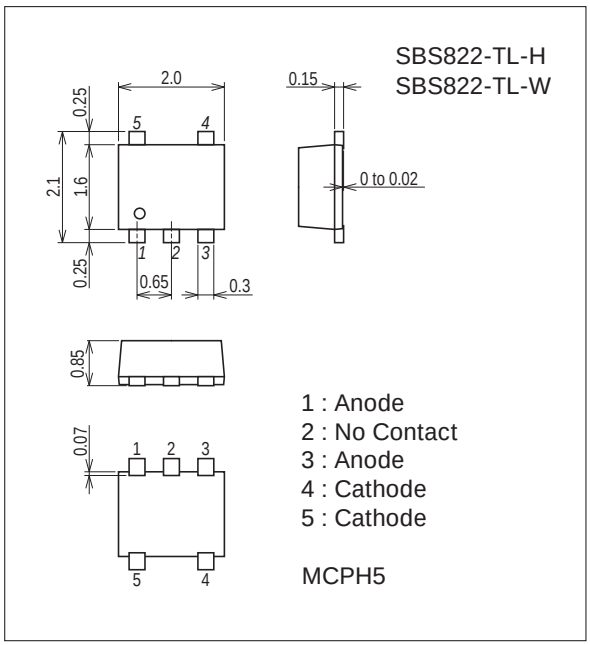
Absolute Maximum Ratings at Ta=25°C (Value per element)

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		20	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		20	V
Average Output Current	I_O	When mounted on ceramic substrate (1000mm^2×0.8mm) Rectangular wave	1	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	5	A
Junction Temperature	Tj		−55 to +125	°C
Storage Temperature	Tstg		−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

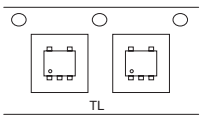
unit : mm (typ)
7021A-001



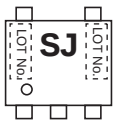
Ordering & Package Information

Device	Package	Shipping	note
SBS822-TL-H	MCPH5 SC-88A, SC-70-5, SOT-353	3,000 pcs./reel	Pb-Free and Halogen Free
SBS822-TL-W	MCPH5 SC-88A, SC-70-5, SOT-353	3,000 pcs./reel	

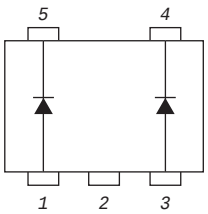
Packing Type : TL



Marking



Electrical Connection

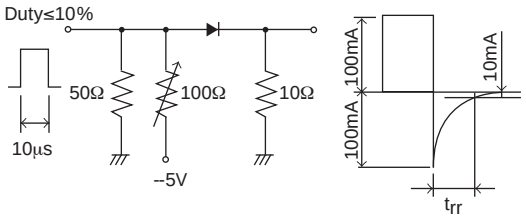


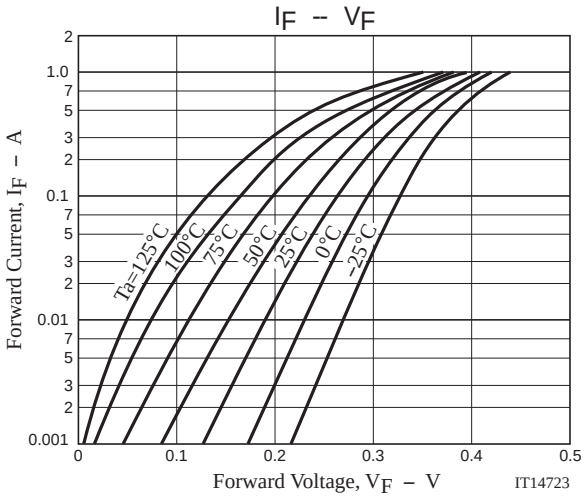
Downloaded from Arrow.com.

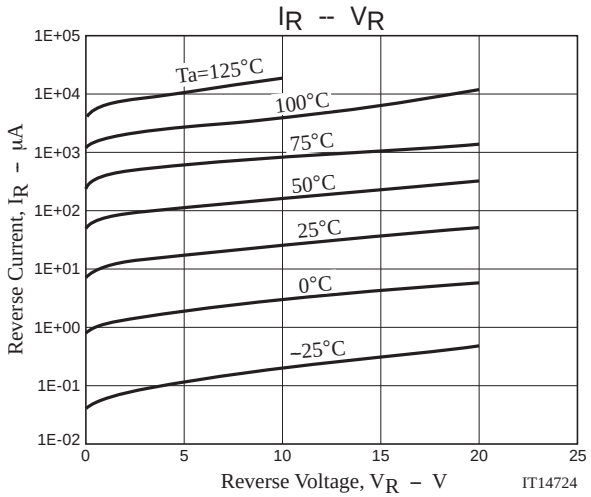
Electrical Characteristics at Ta=25°C (Value per element)

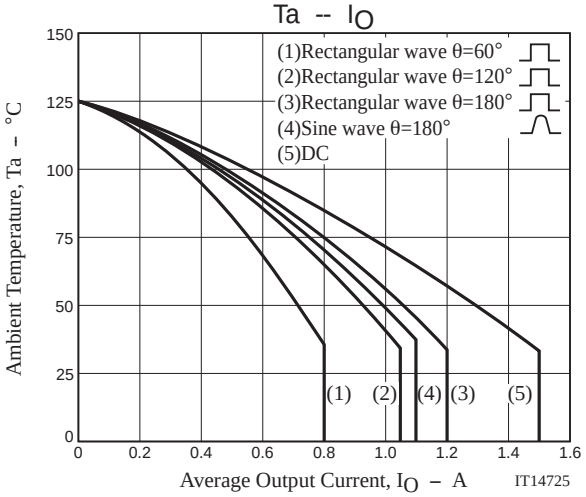
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	I_R=0.5mA	20			V
Forward Voltage	V_F1	I_F=0.5A		0.34	0.39	V
	V_F2	I_F=0.7A		0.37	0.42	V
	V_F3	I_F=1A		0.41	0.46	V
Reverse Current	I_R	V_R=10V			110	μA
Interterminal Capacitance	C	V_R=10V, f=1MHz		19		pF
Reverse Recovery Time	t_{rr}	I_F=I_R=100mA, See specified Test Circuit.			10	ns
Thermal Resistance	Rth(j-a)	When mounted on ceramic substrate (1000mm²x0.8mm)		130		°C / W

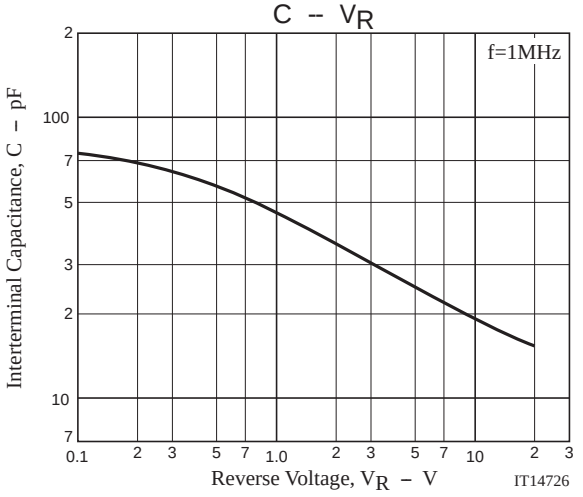
t_{rr} Test Circuit







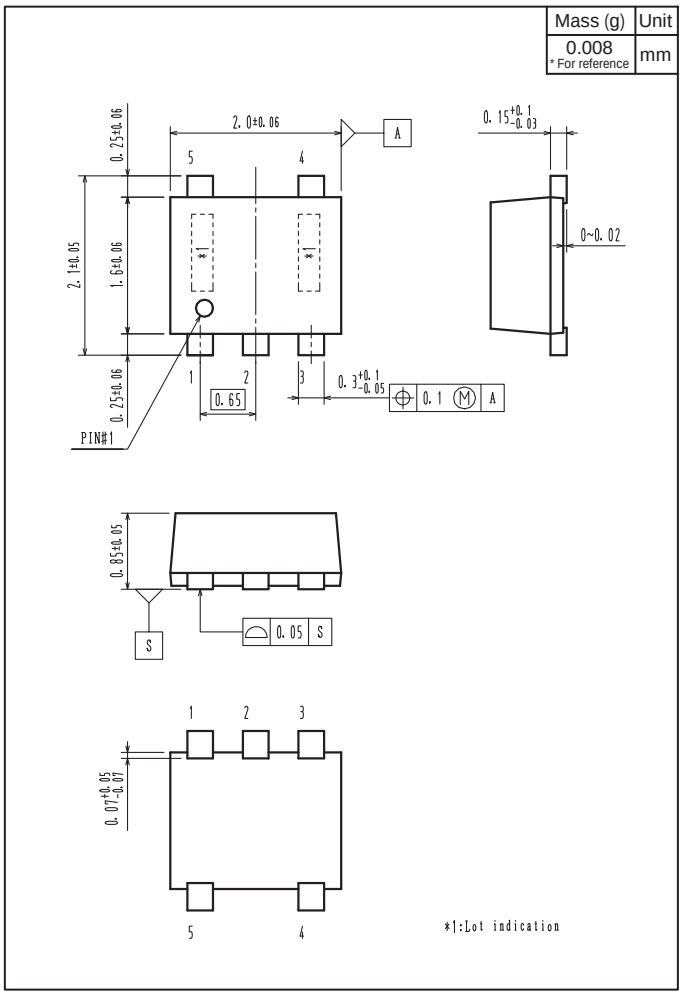




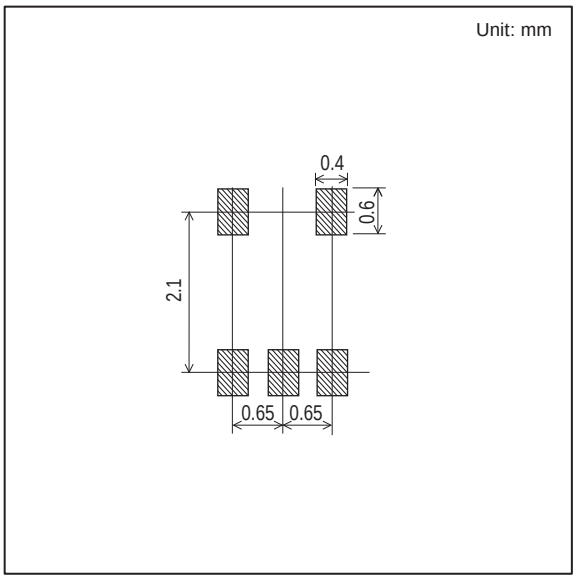
Downloaded from Arrow.com.

Outline Drawing

SBS822-TL-H, SBS822-TL-W



Land Pattern Example



Downloaded from Arrow.com.

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 "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.

Downloaded from Arrow.com.