



ON Semiconductor®

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SBS822

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

Applications

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

Features

- Low forward voltage ($I_F=0.5A$, $V_F \text{ max}=0.39V$) ($I_F=1A$, $V_F \text{ max}=0.46V$).
- 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 $T_a=25^\circ\text{C}$ (Value per element)

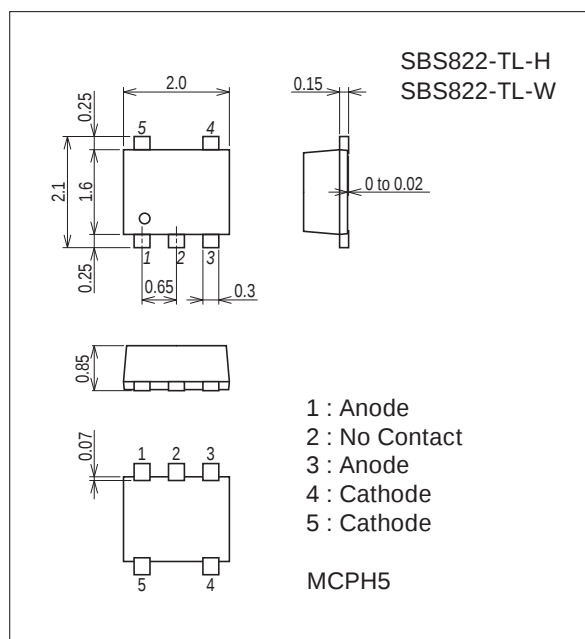
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		20	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		20	V
Average Output Current	I_O	When mounted on ceramic substrate (1000mm ² ×0.8mm) Rectangular wave	1	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	5	A
Junction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

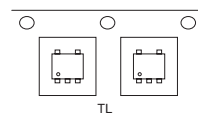
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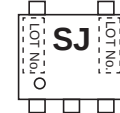
Ordering & Package Information

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	

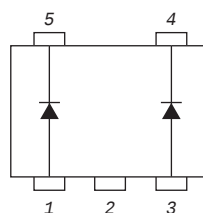
Packing Type : TL



Marking

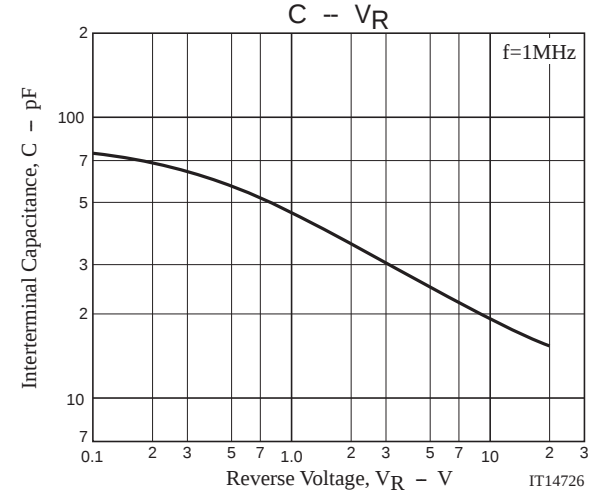
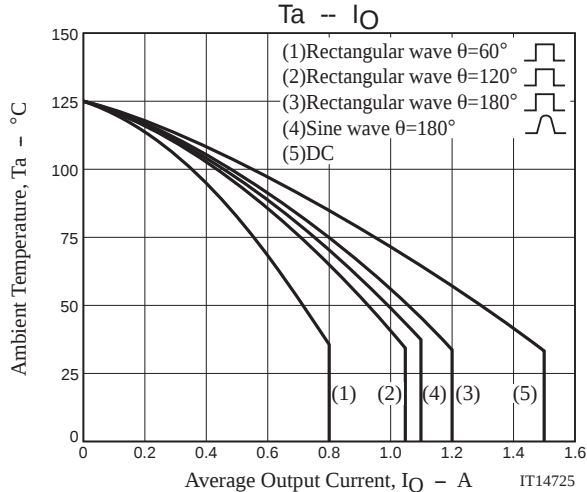
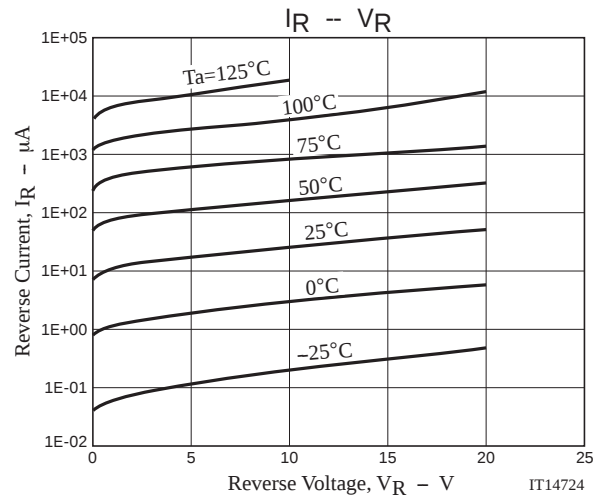
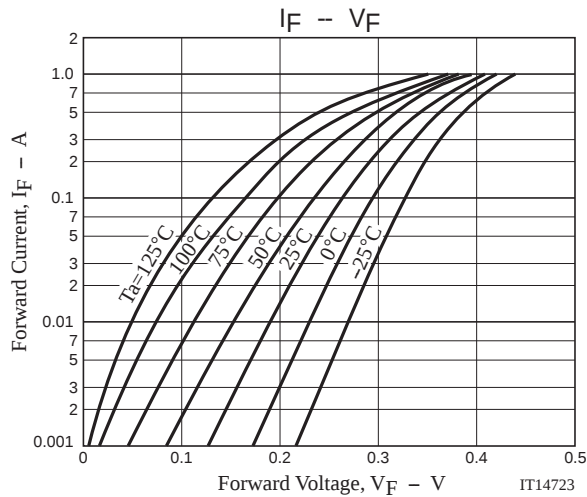
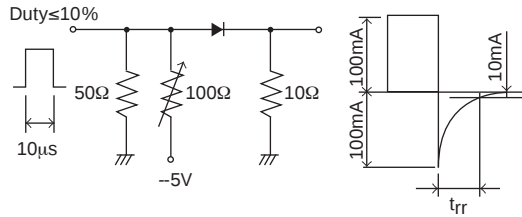


Electrical Connection



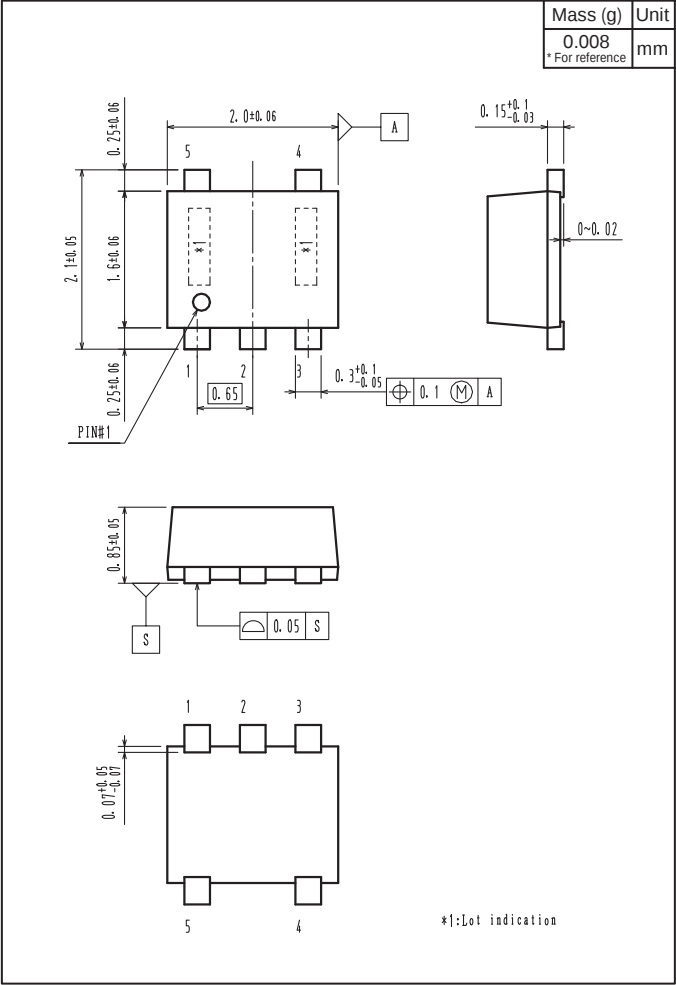
Electrical Characteristics at $T_a=25^\circ\text{C}$ (Value per element)

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=0.5\text{mA}$	20			V
Forward Voltage	V_{F1}	$I_F=0.5\text{A}$		0.34	0.39	V
	V_{F2}	$I_F=0.7\text{A}$		0.37	0.42	V
	V_{F3}	$I_F=1\text{A}$		0.41	0.46	V
Reverse Current	I_R	$V_R=10\text{V}$			110	μA
Interterminal Capacitance	C	$V_R=10\text{V}$, $f=1\text{MHz}$		19		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)}$	When mounted on ceramic substrate ($1000\text{mm}^2 \times 0.8\text{mm}$)		130		$^\circ\text{C} / \text{W}$

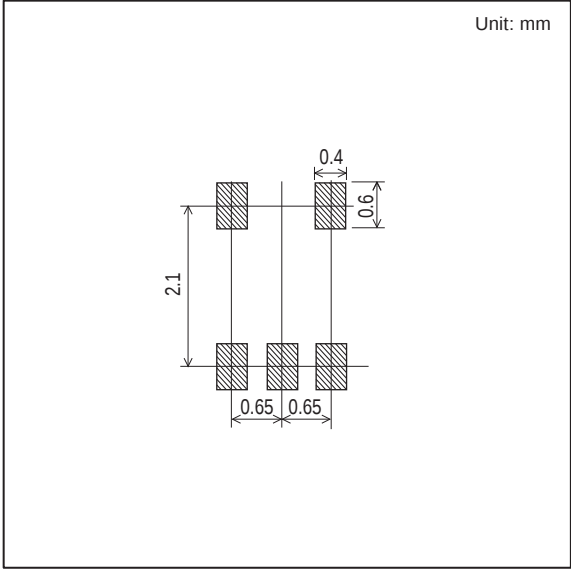
 t_{rr} Test Circuit

Outline Drawing

SBS822-TL-H, SBS822-TL-W



Land Pattern Example



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