



SBS822

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

ON Semiconductor®

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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 VF 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 $T_a=25^\circ C$ (Value per element)

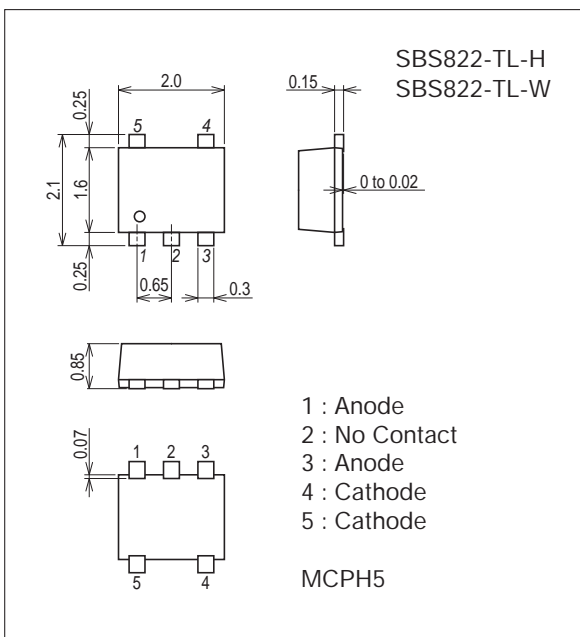
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	VRRM		20	V
Nonrepetitive Peak Reverse Surge Voltage	VRSM		20	V
Average Output Current	I_O	When mounted on ceramic substrate (1000mm ² ×0.8mm) Rectangular wave	1	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	5	A
Junction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

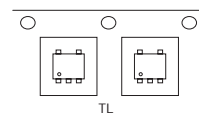
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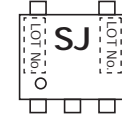
Ordering & Package Information

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	

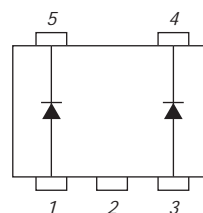
Packing Type : TL



Marking



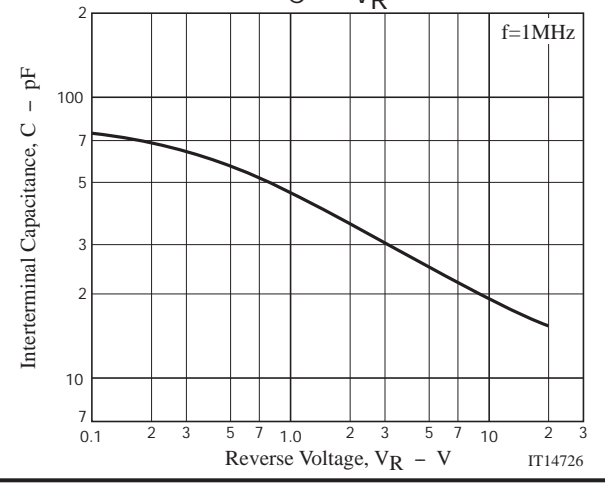
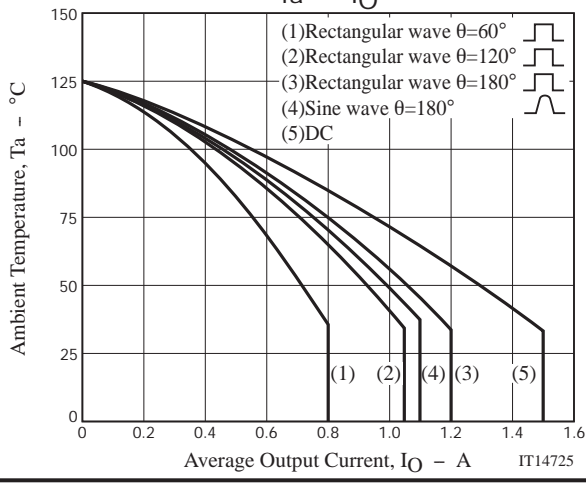
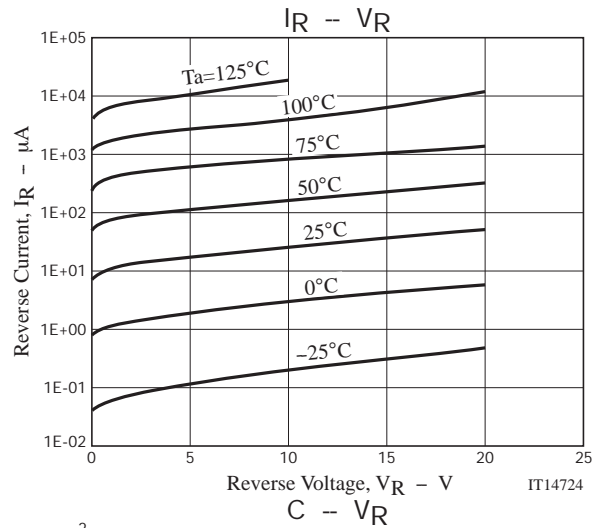
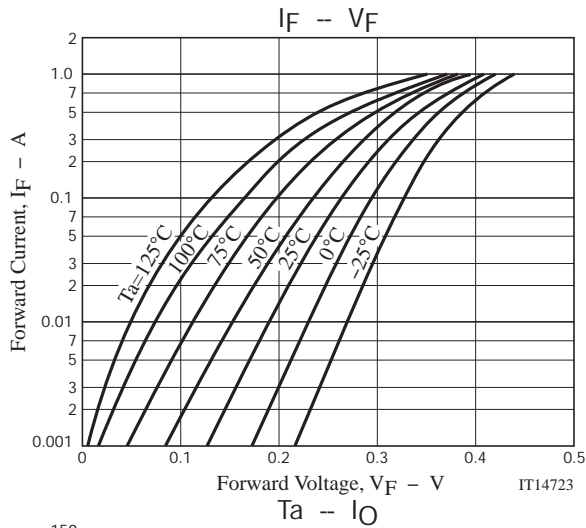
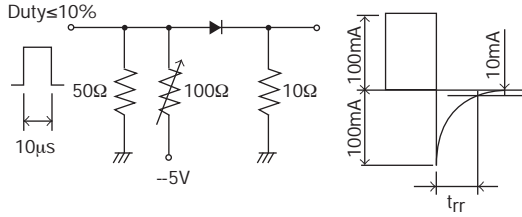
Electrical Connection



Electrical Characteristics at 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	R _{th(j-a)}	When mounted on ceramic substrate (1000mm ² ×0.8mm)		130		°C / W

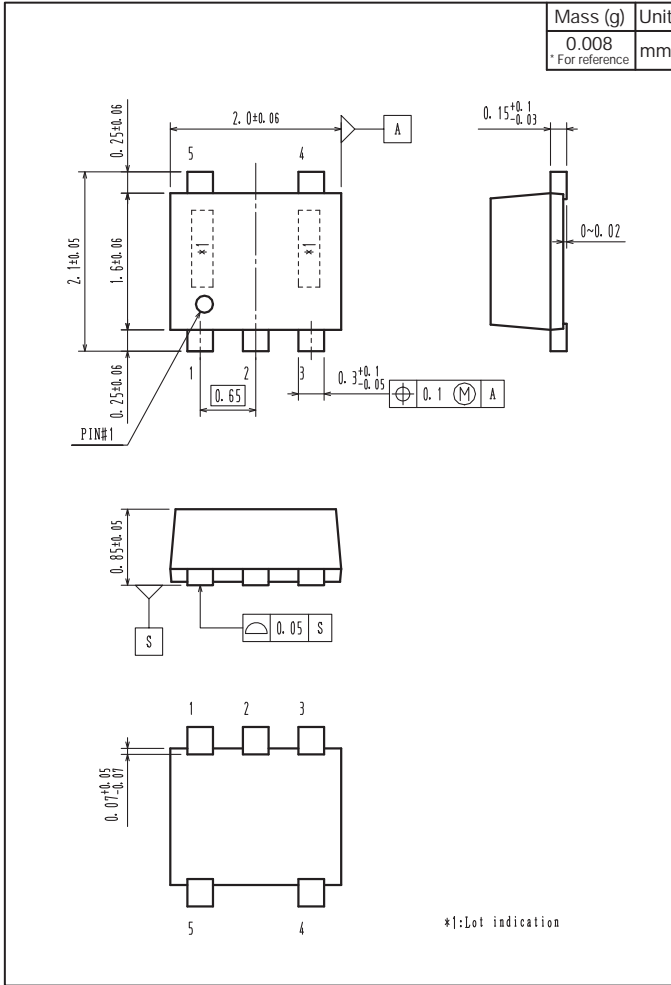
t_{rr} Test Circuit



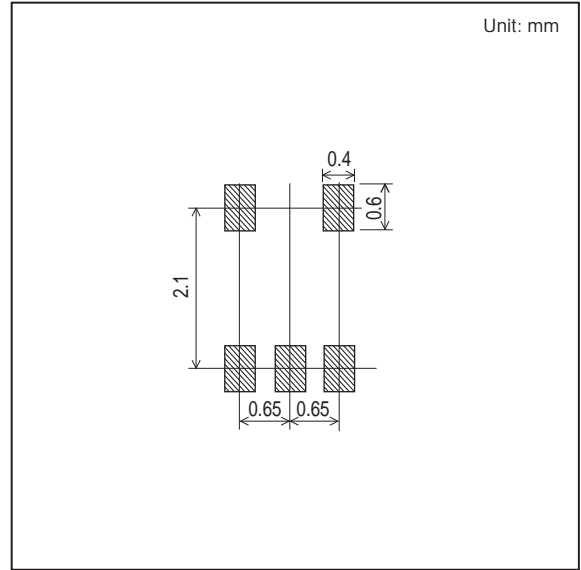
SBS822

Outline Drawing

SBS822-TL-H, SBS822-TL-W



Land Pattern Example



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