

Silicon Bridge Rectifiers

TB204S - TB210S

Features

- Glass passivated junction
- High surge current capability
- Saves space on printed circuit boards
- High-temp soldering guaranteed: 260°C @ 10s.
- RoHS compliant with Halogen-free



Mechanical Data

- Case: TBS molded plastic
- Molding compound meets UL 94 V-0 flammability rating
- Terminals: Lead Free Plating (Matte Tin Finish.)
- Polarity indicator: As marked on body

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	TB204S	TB206S	TB208S	TB210S	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	400	600	800	1000	V
RMS Reverse Voltage	V _{RMS}	280	420	560	700	V
DC Blocking Voltage	V _{DC}	400	400	800	1000	V
Maximum Average Forward Output Current	I _{F_AV}	2.0				A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I _{FSM}	50				A
I ² t Rating for fusing	I ² t	10.4				A ² s

Thermal Characteristics

Parameter	Symbol	TB204S	TB206S	TB208S	TB210S	Unit
Typical Thermal Resistance per leg *1	R _{θJA}	75				°C/W
	R _{θJC}	25				
	R _{θJL}	20				
Operating Junction Temperature Range	T _J	-55 ~ +150				°C
Storage Temperature Range	T _{STG}	-55 ~ +150				°C

Note *1: Device mounted on p.c.b. with 10 mm x 20 mm x 0.1mm copper pad area

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Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition		Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage	V_F	$I_F = 2.0\text{A}$ Per Diode		-	1.05	V
Maximum Reverse Current	I_R	Rated V_R , Per Diode	@ $T_A = 25^\circ\text{C}$	-	5.0	μA
			@ $T_A = 125^\circ\text{C}$	-	100.0	

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Ratings and Characteristic Curves (@T_A=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

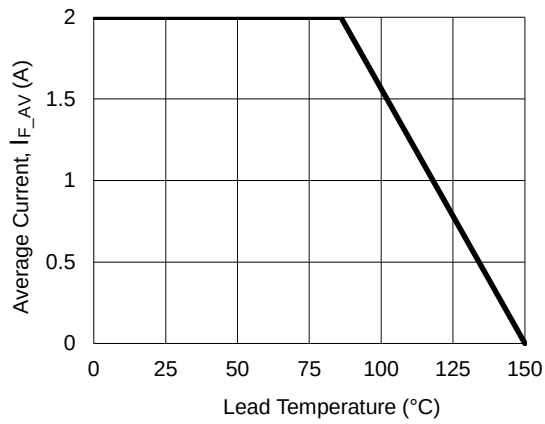


Fig.2 Surge Current Derating Curve

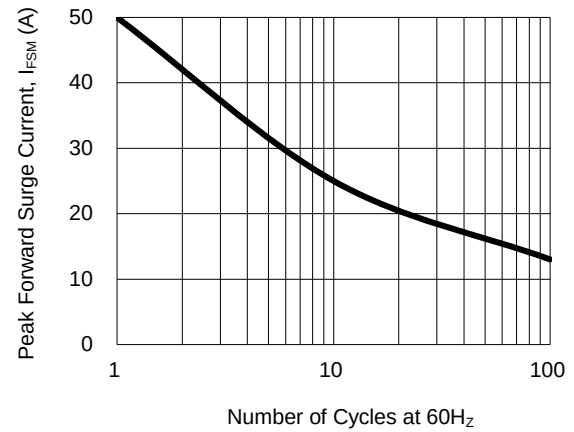


Fig.3 Typical Forward Voltage Characteristics

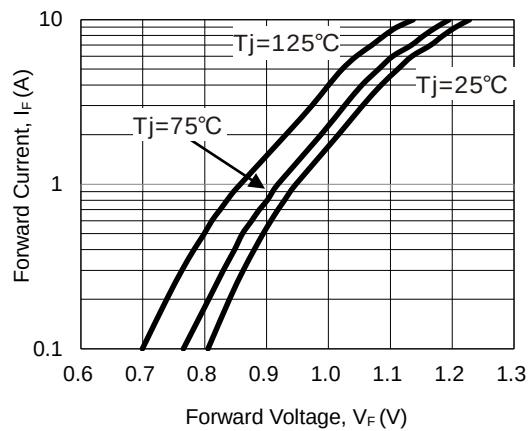
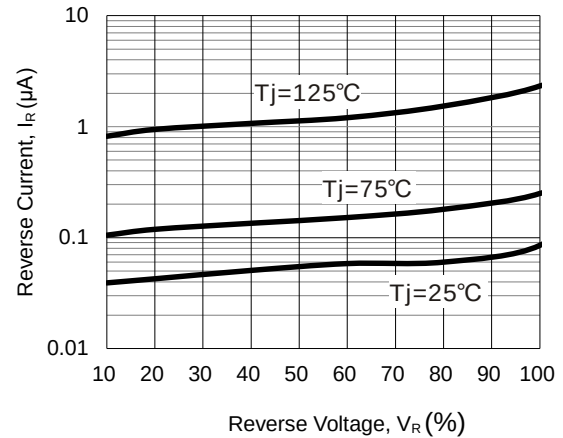


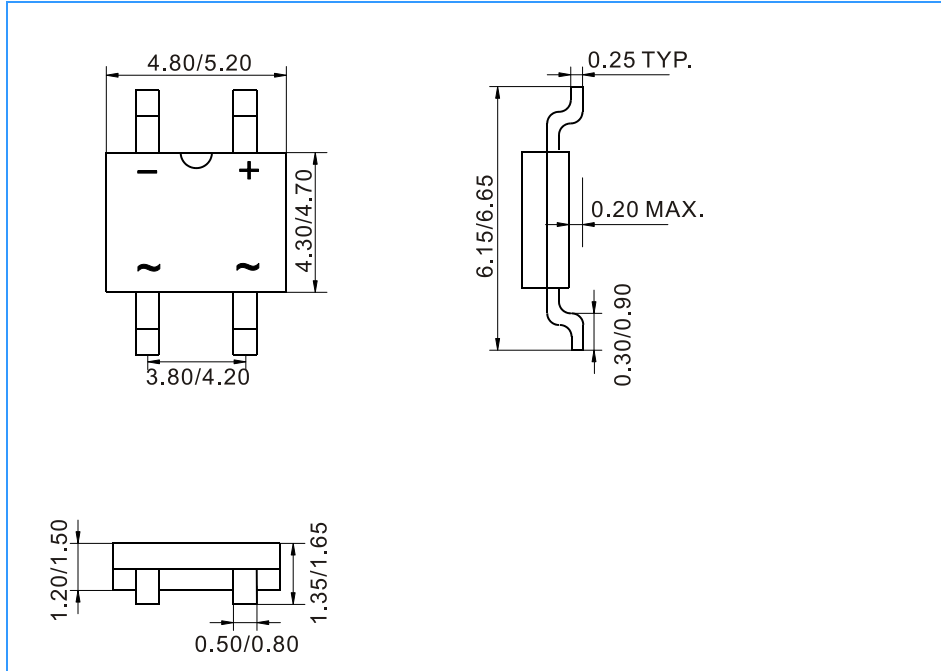
Fig.4 Typical Reverse Characteristics



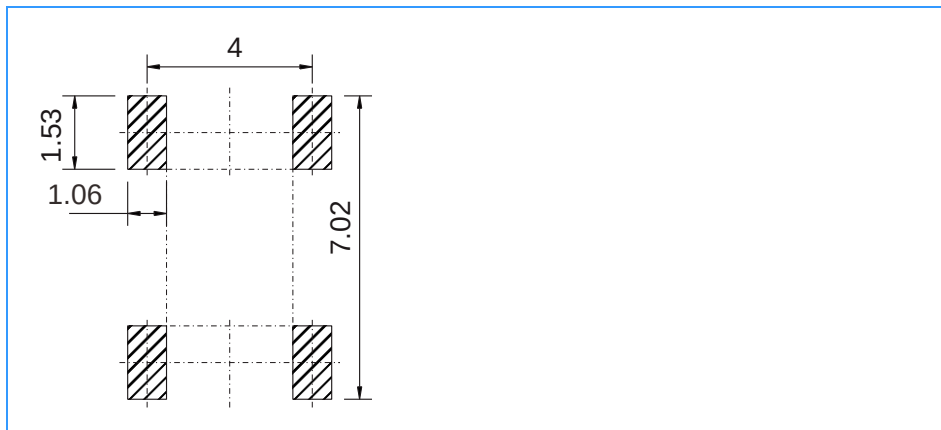
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Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
TB204S	TB204S	TBS	4000 / Tape & Reel
TB206S	TB206S	TBS	4000 / Tape & Reel
TB208S	TB208S	TBS	4000 / Tape & Reel
TB210S	TB210S	TBS	4000 / Tape & Reel