

# TB05S THRU TB10S

## SINGLE PHASE 1.0 AMP SURFACE MOUNT BRIDGE RECTIFIERS



### FEATURES

- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded plastic technique
- \* High surge current capability
- \* Polarity: Symbol molded on body
- \* Mounting position: Any
- \* Weight: 0.12 grams

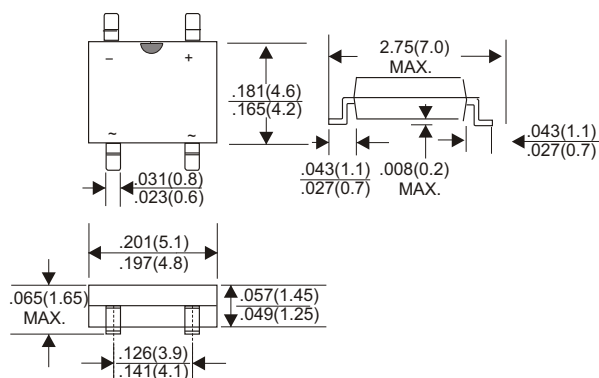
### VOLTAGE RANGE

50 to 1000 Volts

### CURRENT

1.0 Ampere

### TBS



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

TYPE NUMBER	TB05S	TB1S	TB2S	TB4S	TB6S	TB8S	TB10S	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Ta=40°C(Note 1)	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	3.0							A
Maximum Forward Voltage Drop per Bridge Element at 0.4A D.C.	1.0							V
Maximum DC Reverse Current Ta=25°C	5.0							μA
at Rated DC Blocking Voltage Ta=125°C	500							μA
Typical Thermal Resistance R <sub>JA</sub> (Note 2)	75							°C/W
Operating Temperature Range, T <sub>J</sub>	-55 — +150							°C
Storage Temperature Range, T <sub>STG</sub>	-55 — +150							°C

NOTES: 1. Mounted on P.C. Board.  
2. Thermal Resistance Junction to Ambient.

## RATING AND CHARACTERISTIC CURVES (TB05S THRU TB10S)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

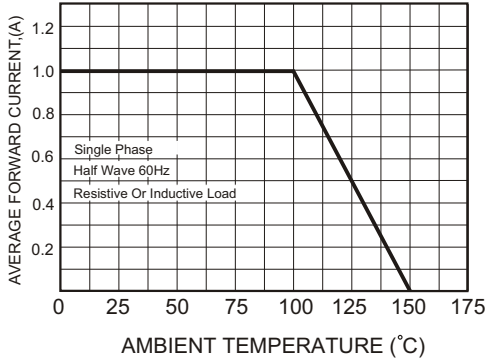


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

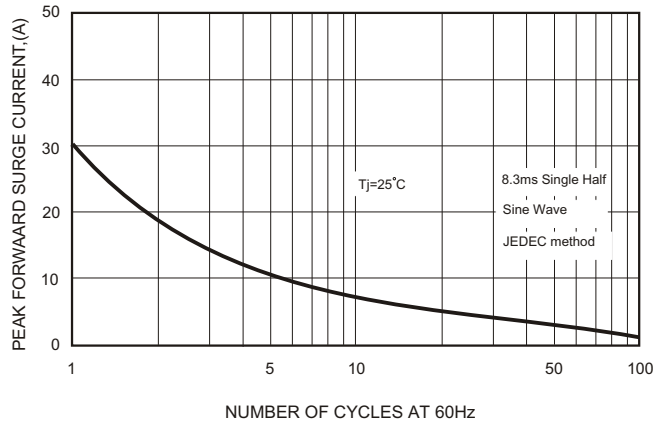


FIG.3-TYPICAL FORWARD CHARACTERISTICS

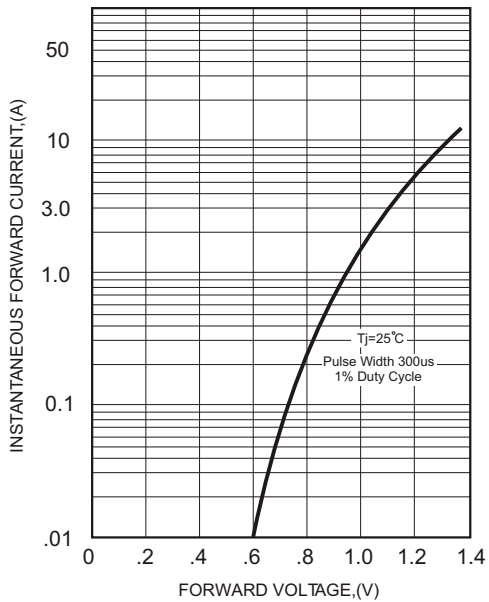
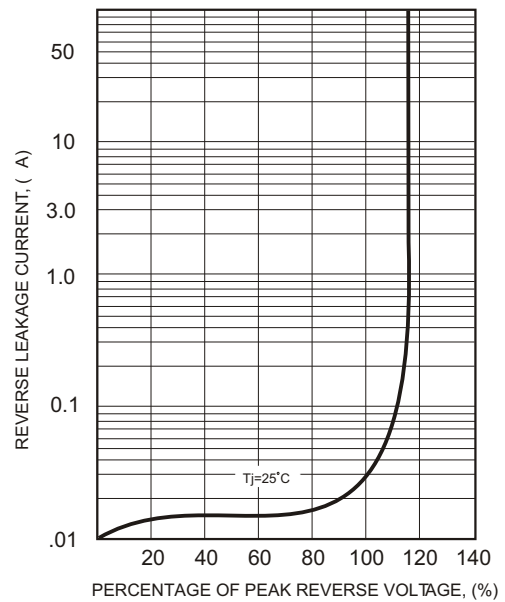
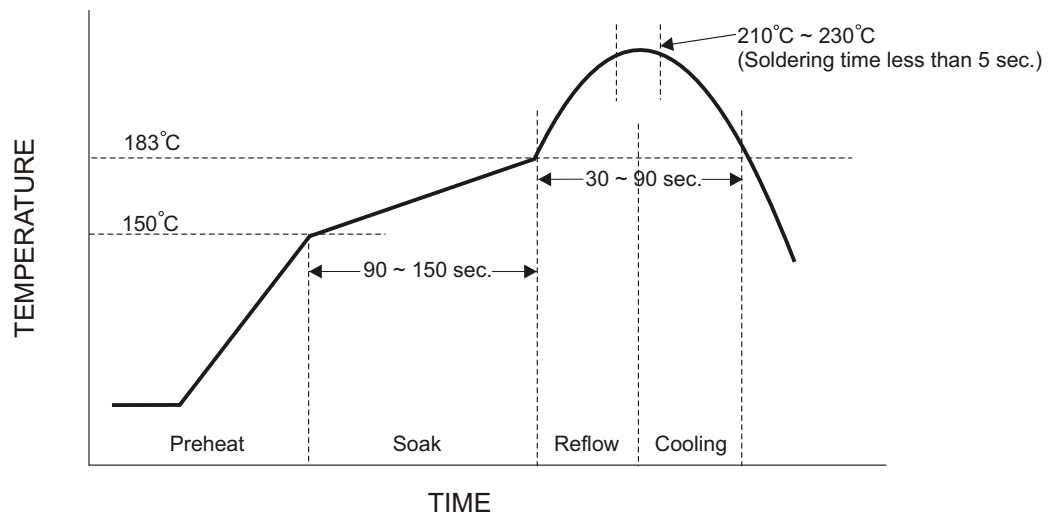


FIG.4-TYPICAL REVERSE CHARACTERISTICS

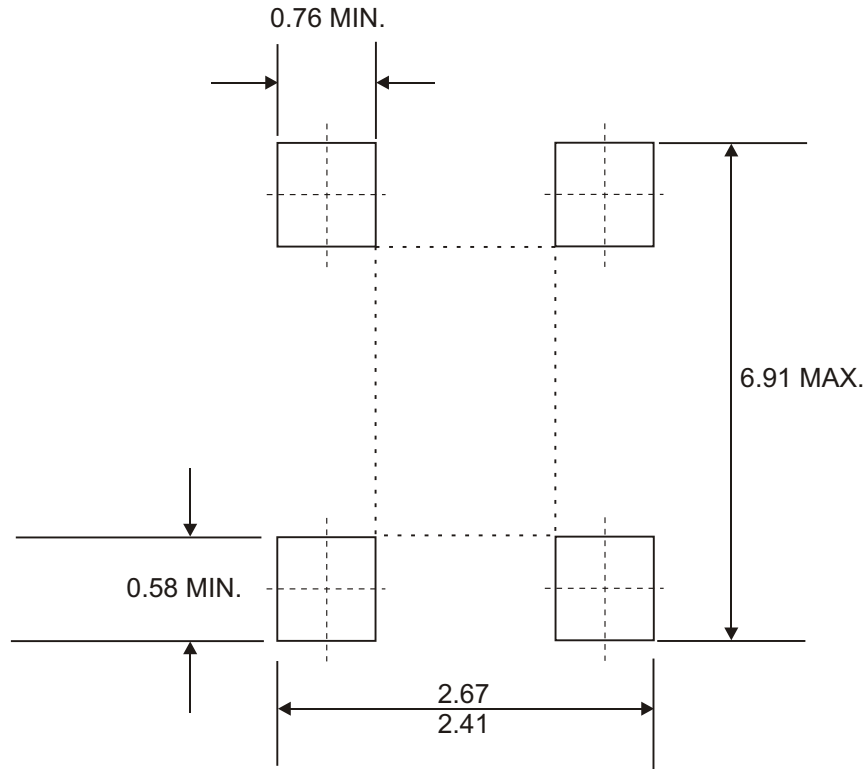


RECOMMENDED INFRARED REFLOW SOLDERING PROFILE:



RECOMMENDED MANUAL SOLDERING CONDITION: 350 C / LESS THAN 3 SECONDS.

RECOMMENDED MOUNTING PAD LAYOUT:



DIMENSIONS IN MILLIMETER