



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

TB05S
THRU
TB10S

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE MINI SURFACE MOUNT BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 1.0 Ampere

FEATURES

- * Low forward voltage drop
- * Ideal for printed circuit board
- * High reliability
- * High surge current capability
- * Glass passivated junction

MECHANICAL DATA

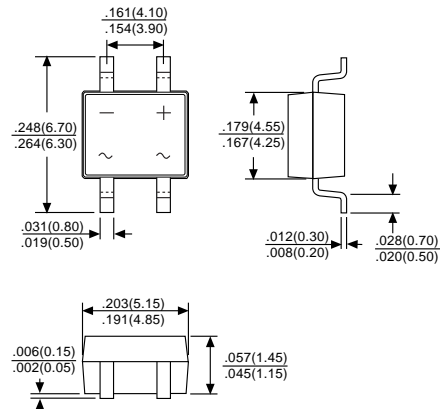
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 0.20 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



TBS



		SYMBOL	TB05S	TB1S	TB2S	TB4S	TB6S	TB8S	TB10S	UNITS
Maximum Recurrent Peak Reverse Voltage		VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at TA = 25°C (Note 1)		IO	1.0							Amps
Maximum Average Forward Output Current at TA = 25°C (Note 2)			0.8							
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	30							Amps
Maximum DC Forward Voltage Drop per Bridge Element at 0.4A DC		VF	0.95							Volts
Maximum Reverse Current at rated	@TA = 25°C	IR	10							μAmps
DC Blocking Voltage per element	@TA = 125°C		150							
Typical Junction Capacitance (Note 3)		CJ	25							pF
Typical Thermal Resistance (Note 1)		RθJA	62.5							°C/W
Typical Thermal Resistance (Note 2)			80							
Operating and Storage Temperature Range		TJ,TSTG	-55 to + 150							°C

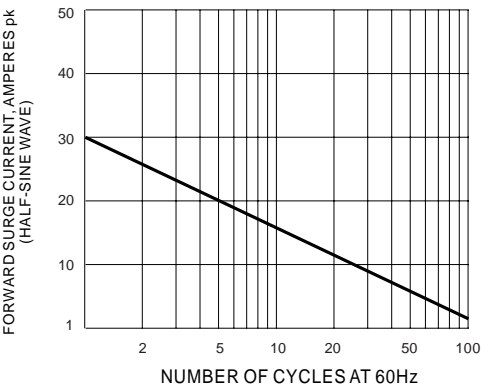
NOTE: 1. Mounted on aluminum substrate P.C. board.

2. Mounted on glass epoxy P.C. board.

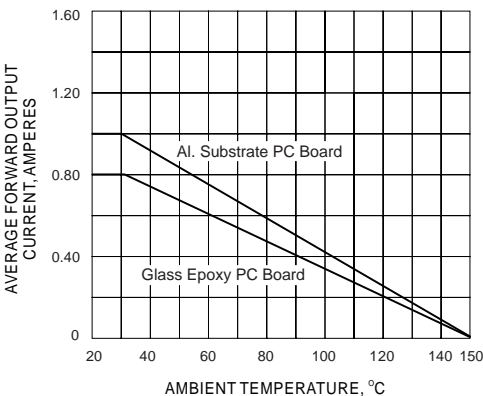
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (TB05S THRU TB10S)

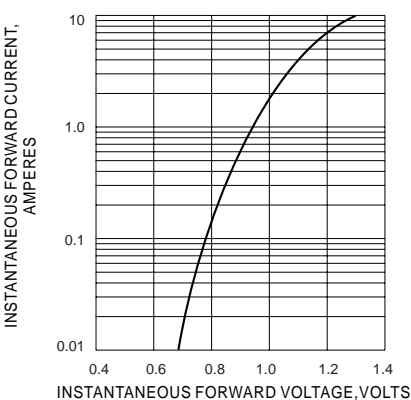
MAXIMUM NON-REPETITIVE SURGE
CURRENT



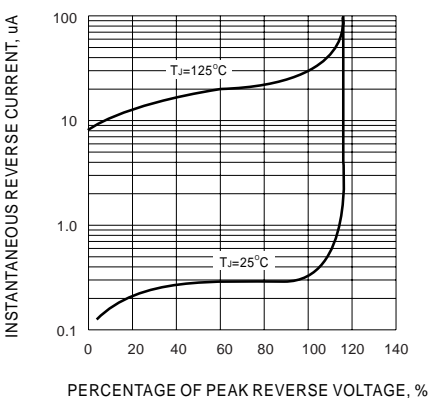
DERATING CURVE FOR OUTPUT RECTIFIED
CURRENT



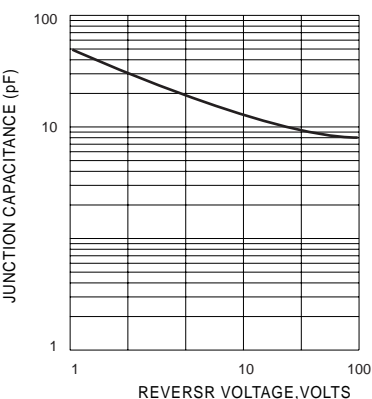
TYPICAL FORWARD CHARACTERISTICS



TYPICAL REVERSE CHARACTERISTICS



TYPICAL JUNCTION CAPACITANCE



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