



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

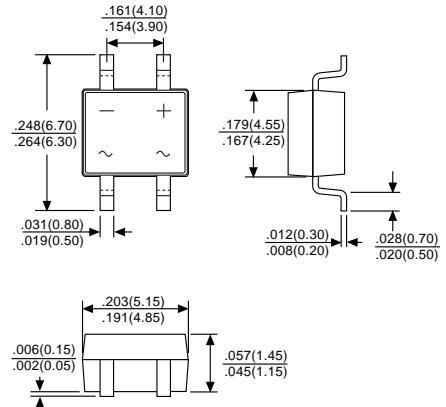
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 0.20 gram

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



Dimensions in inches and (millimeters)

	SYMBOL	TB05S	TB1S	TB2S	TB4S	TB6S	TB8S	TB10S	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at T _A = 25°C (Note 1)	I _O	1.0							Amps
Maximum Average Forward Output Current at T _A = 25°C (Note 2)		0.8							
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							Amps
Maximum DC Forward Voltage Drop per Bridge Element at 0.4A DC	V _F	0.95							Volts
Maximum Reverse Current at rated	I _R	10							μAmps
DC Blocking Voltage per element		150							
Typical Junction Capacitance (Note 3)	C _J	25							pF
Typical Thermal Resistance (Note 1)	R _{θJA}	62.5							°C/W
Typical Thermal Resistance (Note 2)		80							
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150							°C

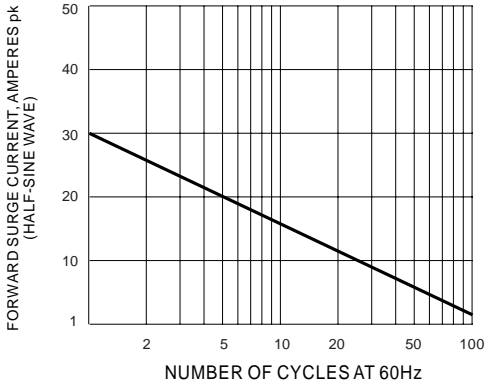
NOTE: 1. Mounted on aluminum substrate P.C. board.

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

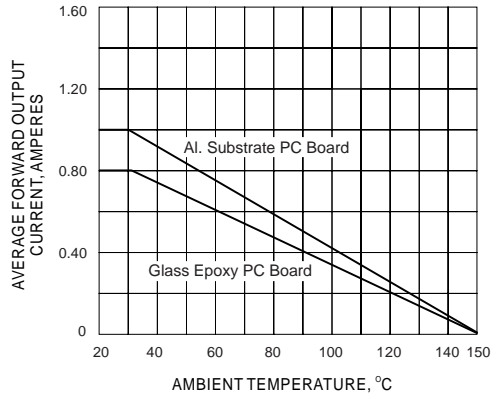
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (TB05S THRU TB10S)

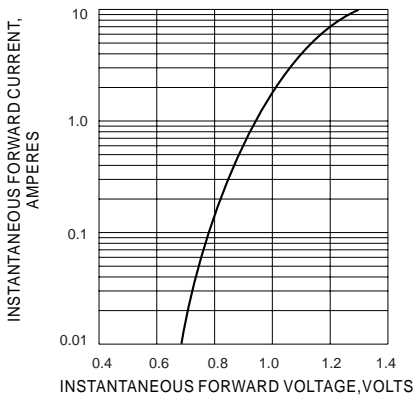
MAXIMUM NON-REPETITIVE SURGE CURRENT



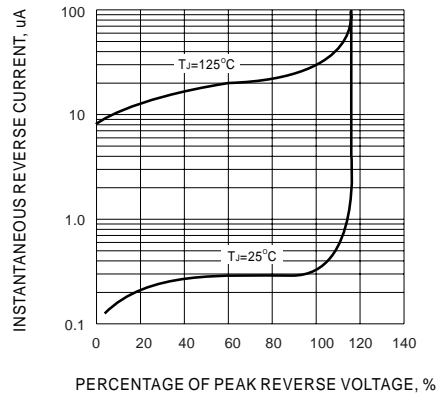
DERATING CURVE FOR OUTPUT RECTIFIED CURRENT



TYPICAL FORWARD CHARACTERISTICS



TYPICAL REVERSE CHARACTERISTICS



TYPICAL JUNCTION CAPACITANCE

