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*

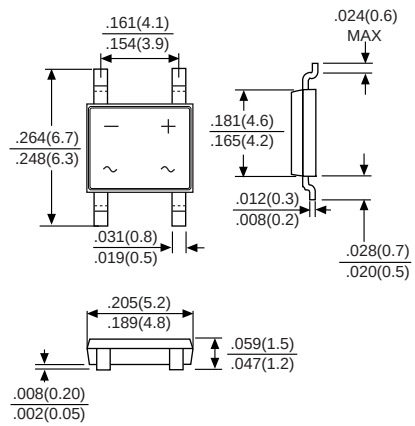
FEATURES

* 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

ABS



Dimensions in inches and (millimeters)

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%.

		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
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 1.0A DC		V_F	1.1							Volts
Maximum Reverse Current at rated	@T_A = 25°C	I_R	10							µAmps
DC Blocking Voltage per element	@T_A = 125°C		150							
Typical Thermal Resistance		$R_{\theta JA}$	80							°C/W
Operating and Storage Temperature Range		T_J,T_{STG}	-55 to + 150							°C

NOTE: 1. Mounted on aluminum substrate P.C. board.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (TB05S THRU TB10S)

FIG.1
FORWARD CURRENT DERATING CURVE

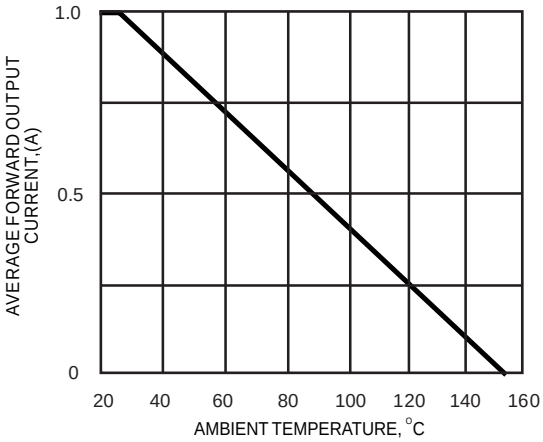


FIG.2
MAXIMUM NON-REPETITIVE SURGE CURRENT

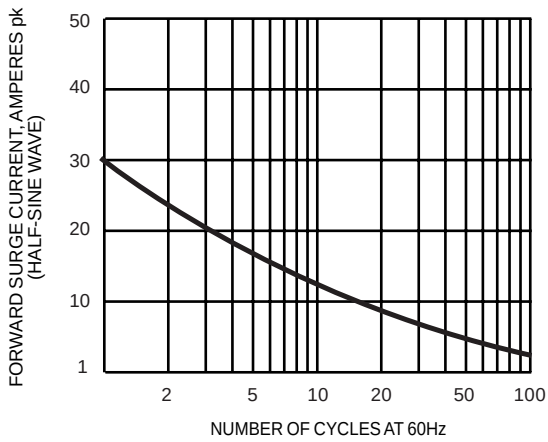


FIG.3
TYPICAL FORWARD CHARACTERISTICS

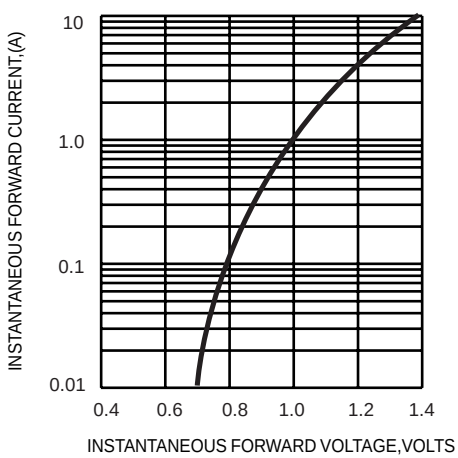
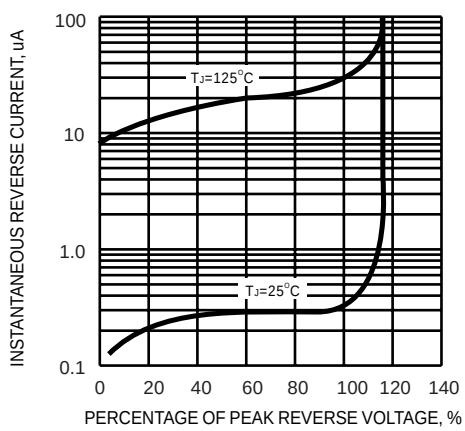


FIG.4
TYPICAL REVERSE CHARACTERISTICS



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