

# DC COMPONENTS CO., LTD.

## RECTIFIER SPECIALISTS

B05S THRU B10S

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE MINI SURFACE MOUNT BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 0.5 Ampere

#### **FEATURES**

- \* Surge overload rating 30 Amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction
- \* Glass passivated junction

### MECHANICAL DATA

\* Case: Molded plastic

\* Epoxy: UL 94V-0 rate flame retardant

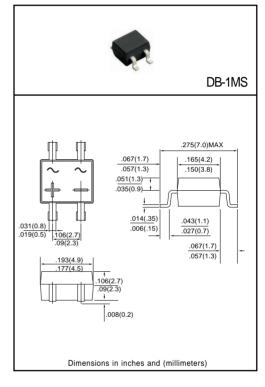
\* Terminals: MIL-STD-202E, Method 208 guaranteed

\* Polarity: Symbols molded or marked on body

\* Mounting position: Any \* Weight: 0.22 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%.

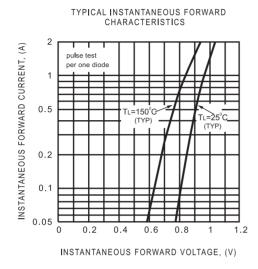


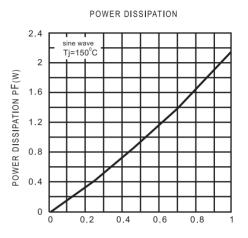
		SYMBOL	B05S	B1S	B2S	B4S	B6S	B8S	B10S	UNITS
Maximum Recurrent Peak Reverse Voltage		VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at TA = 40°C		lo	0.5						Amps	
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 0.5A DC		VF	1.1						Volts	
Maximum Reverse Current at rated	@Ta = 25°C	l <sub>R</sub>	5.0							uAmps
DC Blocking Voltage per element	@Ta = 125°C	T IR	500							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)		l <sup>2</sup> t	10							A <sup>2</sup> Sec
Typical Junction Capacitance ( Note1)		Cı	25							pF
Typical Thermal Resistance (Note 2)		RθJA	85							°C/W
Operating and Storage Temperature Range		TJ,TSTG	-55 to + 150							°C

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

<sup>2.</sup> Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13x13mm) copper pads.

### RATING AND CHARACTERISTIC CURVES (B05S THRU B10S)





AVERAGE RECTIFIED FORWARD CURRENT, Io (A)

