

DB20XS SERIES

SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

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DB201S THRU DB207S

SINGLE-PHASE GLASS PASSIVATED SILICON SURFACE MOUNT BRIDGE RECTIFIER



REVERSE VOLTAGE: 50 to 1000 VOLTS FORWARD CURRENT: 2.0 AMPERE

FEATURES

· Glass passivated chip junction

· Low forward voltage drop

· High surge overload rating of 50 Amperes peak

· Ideal for printed circuit board

· High temperature soldering guaranteed:

260°C for 10 seconds

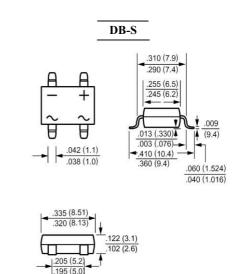
MECHANICAL DATA

Case: Molded plastic, DB-S

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202,

method 208 guaranteed Mounting position: Any Weight: 0.02ounce, 0.4gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	DB201S	DB202S	DB203S	DB204S	DB205S	DB206S	DB207S	Units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V RMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T _A =40 °C (Note 2)	I(AV)				2.0				Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	60							Amp
Maximum Forward Voltage at 1.0A DC and 25℃	V_{F}	1.1							Volts
Maximum Reverse Current at T _A =25°C at Rated DC Blocking Voltage T _A =125°C	I _R	5.0 500							uAmp
Typical Junction Capacitance (Note 1)	CJ	25							pF
Typical Thermal Resistance (Note 2)	Roja	40							°C/W
Typical Thermal Resistance (Note 2)	R _{0JL}	15							℃/ W
Operating and Storage Temperature Range	TJ, Tstg	-55 to +150							$^{\circ}$

NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Units mounted on P.C.B. with 0.5 x 0.5" (13 x 13mm) copper pads



RATINGS AND CHARACTERISTIC CURVES

Fig. 1 - Derating Curve Output **Rectified Current** 1.0 Average Forward Output Current (A) 60 Hz Resistive or Inductive Load 0.5 P.C.B mounted on 0.51 x 0.51" (13 x 13mm) Copper pads 0 20 40 80 100 120 140 160 Ambient Temperature (°C)

Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg Average Forward Output Current (A) T_J = 150°C 50 Single Sine-Wave (JEDEC Method) 40 30 20 1.0 Cycle 10 0 10 100 Number of Cycles at 60 Hz

Fig. 3 - Typical Forward Characteristics

Per Leg

10

10

T J = 25°C

Pulse width = 300µs

1% Duty Cycle

1% Duty Cycle

Instantaneous Forward Voltage (V)

