

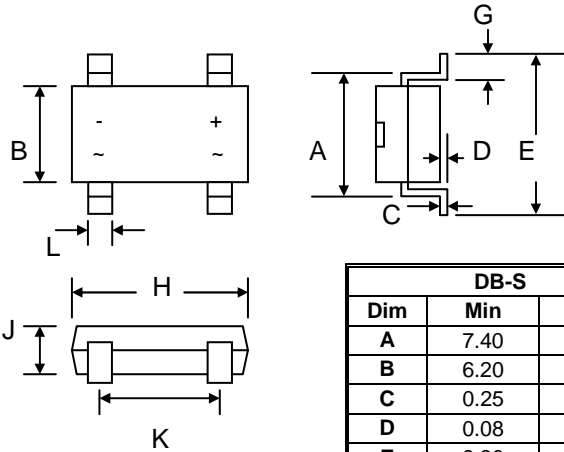
# Amber Electronic Limited

DB201S – DB207S

## 2.0A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

### Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O



### Mechanical Data

- Case: DB -S, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Weight: 0.38 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version,**

DB-S		
Dim	Min	Max
A	7.40	7.90
B	6.20	6.50
C	0.25	—
D	0.08	0.33
E	9.30	10.30
G	1.02	1.53
H	8.00	8.51
J	2.15	3.40
K	5.00	5.20
L	0.90	1.20
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	DB 201S	DB 202S	DB 203S	DB 204S	DB 205S	DB 206S	DB 207S	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)}</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>A</sub> = 40°C	I <sub>O</sub>	2.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	60							A
Forward Voltage per element @I <sub>F</sub>	V <sub>FM</sub>	1.1							V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C	I <sub>RM</sub>	5.0 500							μA
Typical Junction Capacitance per element (Note 1)	C <sub>j</sub>	25							pF
Typical Thermal Resistance per leg (Note 2)	R <sub>θJA</sub> R <sub>θJL</sub>	40 15							°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150							°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
2. Mounted on PC board with 13mm<sup>2</sup> copper pad.

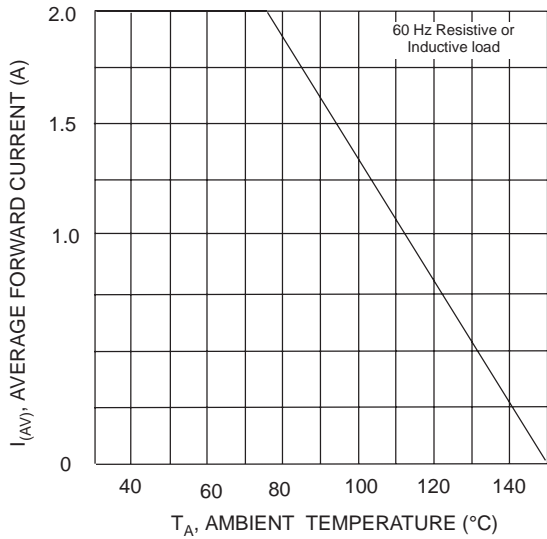


Fig. 1 Output Current Derating Curve

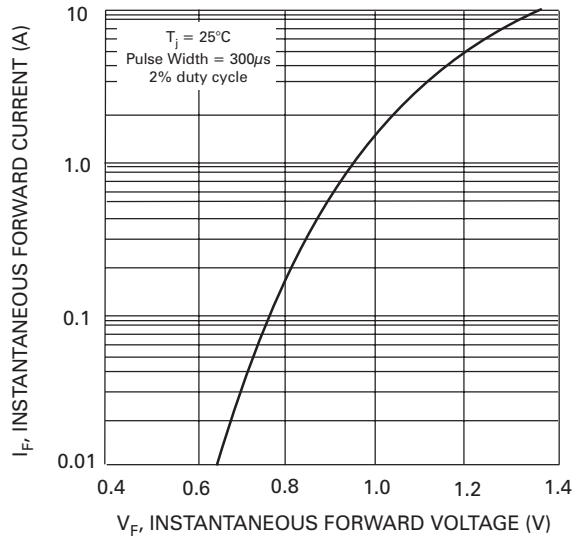


Fig. 2 Typ Forward Characteristics (per element)

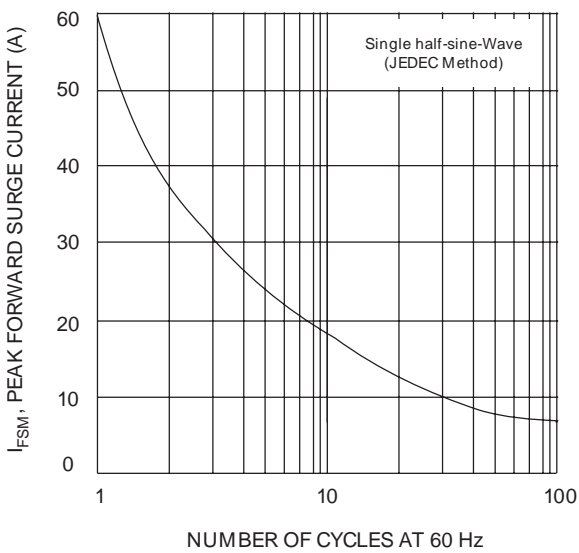


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

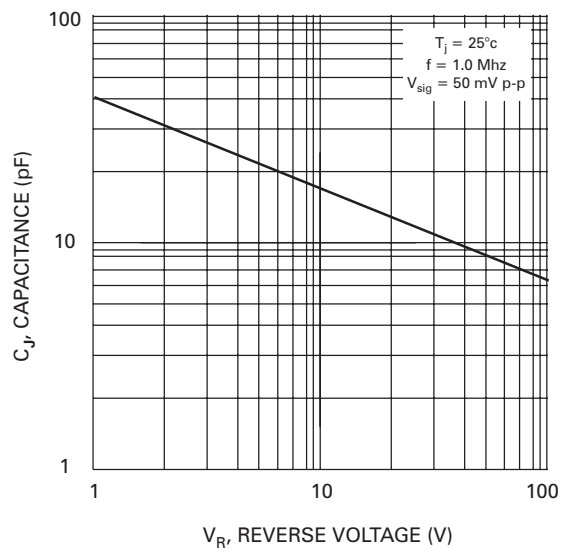


Fig. 4 Typ Junction Capacitance (per element)

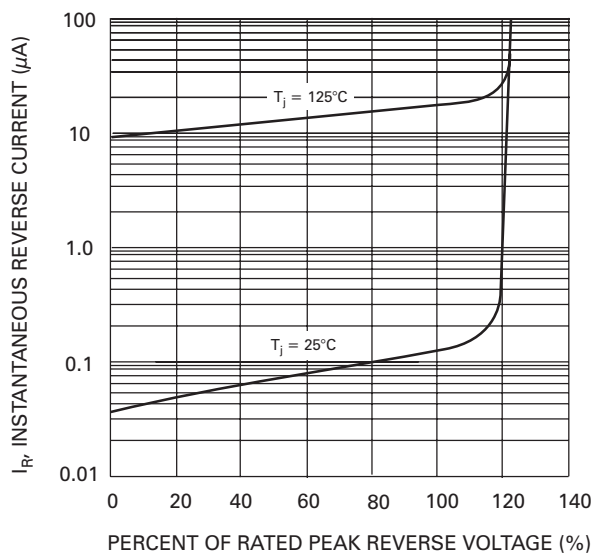


Fig. 5 Typ Reverse Characteristics (per element)