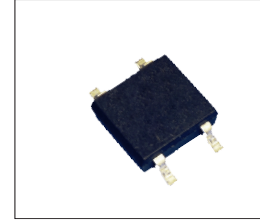


## Bridge Rectifiers

## DB401S Thru DB407S

### Features

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Glass passivated chip junction
- ◆ High forward surge capability



### Mechanical Data

**Case:** DFS Molded plastic body

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**High temperature soldering guaranteed:** 260°C/10 seconds

**Mounting Position:** Any

### Maximum Ratings & Electrical Characteristics

Ratings at TA = 25°C unless otherwise specified

Parameter	Symbol	DB401S	DB402S	DB403S	DB404S	DB405S	DB406S	DB407S	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Average forward rectified output current	$I_{F(AV)}$	4.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	110							A
Rating for fusig (t<8.3ms)	$I^2t$	50.2							A <sup>2</sup> sec
Maximum instantaneous forward voltage dropper leg at 4A	$V_F$	1.1							V
Maximum DC reverse current at rated DC blocking voltage per leg	T <sub>J</sub> =25°C	5.0							uA
	T <sub>J</sub> =125°C								

### Thermal Characteristics

Typical thermal resistance per leg (Note 1)	R <sub>θJA</sub>	65	°C/W
	R <sub>θJL</sub>	15	
Operating junction temperature range	T <sub>J</sub>	-55 to +150	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C

**Note**

(1) Units mounted on PCB with 0.47×0.47(12×12mm) Copper Pads

## Bridge Rectifiers

## DB401S Thru DB407S

### Ratings and Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

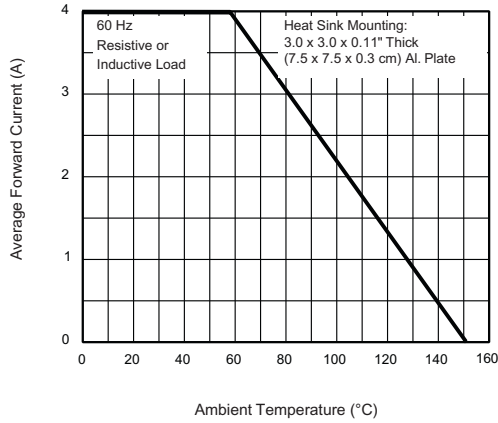


Figure 1. Forward Current Derating Curve

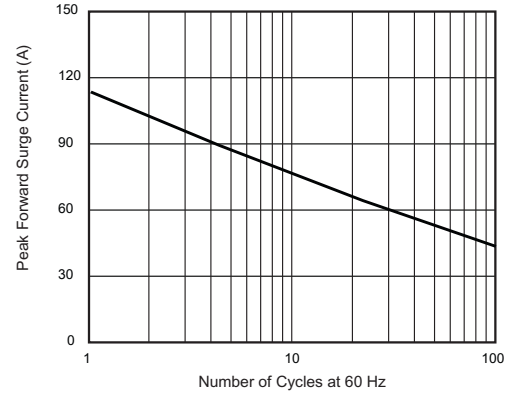


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

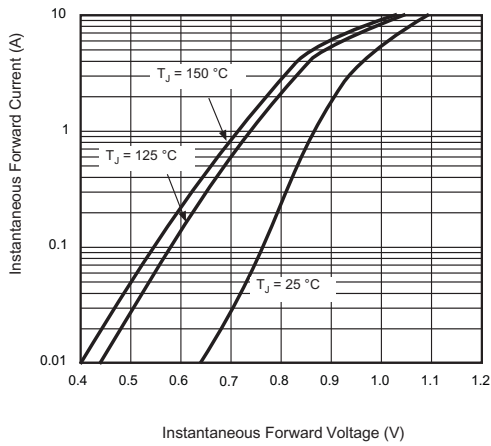


Figure 3. Typical Forward Characteristics Per Diode

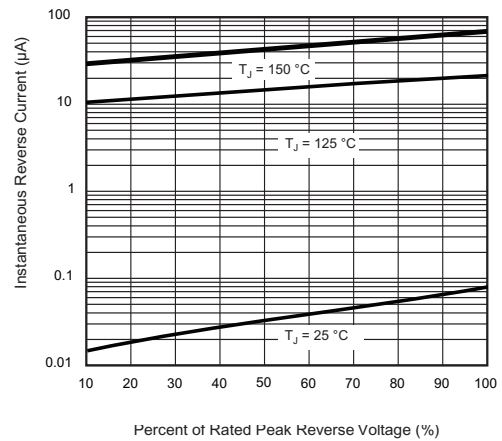


Figure 4. Typical Reverse Leakage Characteristics Per Diode

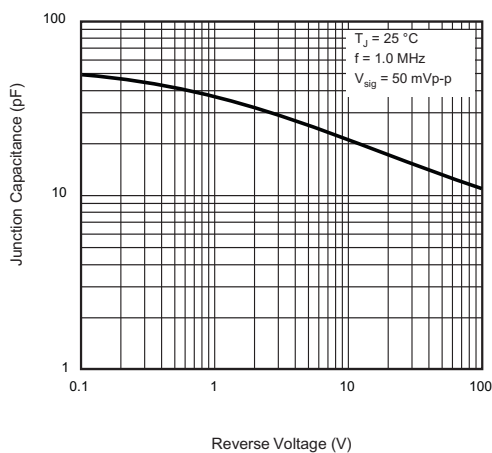


Figure 5. Typical Junction Capacitance Per Diode

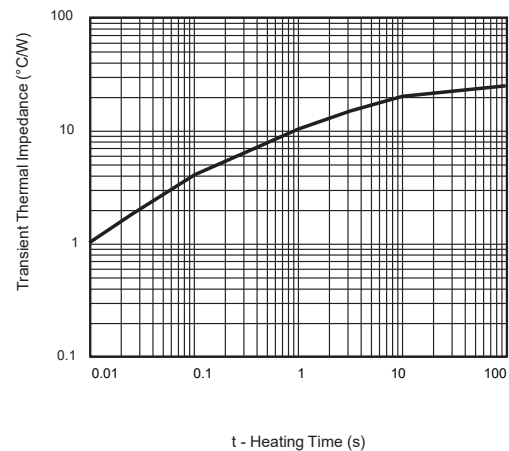
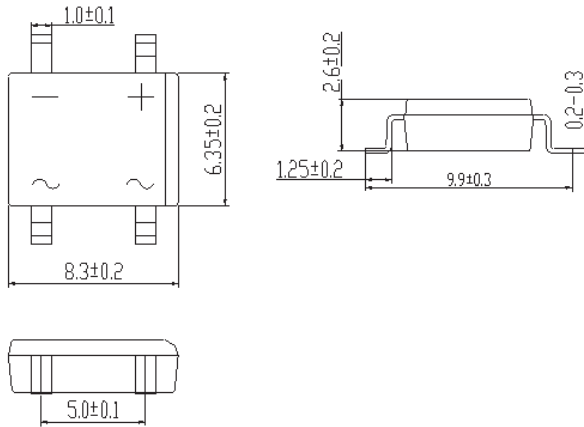


Figure 6. Typical Transient Thermal Impedance Per Diode

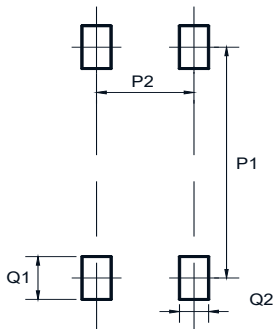
## Bridge Rectifiers

## DB401S Thru DB407S

### Package Outline Dimensions(unit:mm)



### Mounting Pad Layout(unit:mm)



Dim	Min
P1	8.73
P2	5.12
Q1	2.22
Q2	1.2

### Ordering Information

Part No.	Marking	Package	Shipping
DB401S	DB401S	DFS	1500/Tape&Reel
DB402S	DB402S	DFS	1500/Tape&Reel
DB403S	DB403S	DFS	1500/Tape&Reel
DB404S	DB404S	DFS	1500/Tape&Reel
DB405S	DB405S	DFS	1500/Tape&Reel
DB406S	DB406S	DFS	1500/Tape&Reel
DB407S	DB407S	DFS	1500/Tape&Reel