



DB151S-DB157S

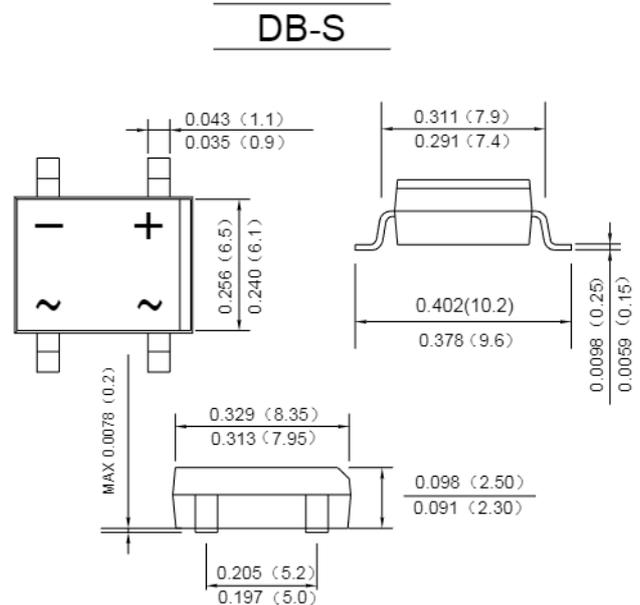
SURFACE MOUNT BRIDGE RECTIFIERS

Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
UL Recognized File # E476623

Mechanical Data

- Case: DB-S, oldede plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version,



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.
Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| TYPE NUMBER | SYMBOL | DB151S | DB152S | DB153S | DB154S | DB155S | DB156S | DB157S | UNITS |
|---|-----------------|------------|--------|--------|--------|--------|--------|--------|--------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | | | | | | | | |
| Working Peak Reverse Voltage | V_{RWM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| DC Blocking Voltage | V_{DC} | | | | | | | | |
| RMS Reverse Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current (Note 1)@ $T_A=40^\circ C$ | I_o | 1.5 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 45 | | | | | | | A |
| Forward Voltage per element @ $I_F=1.5A$ | V_{FM} | 1.1 | | | | | | | V |
| Peak Reverse Current @ $T_A=25^\circ C$ At Rated DC Blocking Voltage @ $T_A=125^\circ C$ | I_R | 5.0 500 | | | | | | | μA |
| Typical Junction Capacitance per leg (Note 2) | C_J | 25 | | | | | | | pF |
| Typical Thermal Resistance per leg | $R_{\theta JA}$ | 58 | | | | | | | $^\circ C/W$ |
| Rating for fusing ($t < 8.3ms$) | $I^2 t$ | 6.35 | | | | | | | $A^2 sec$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55to+150 | | | | | | | $^\circ C$ |

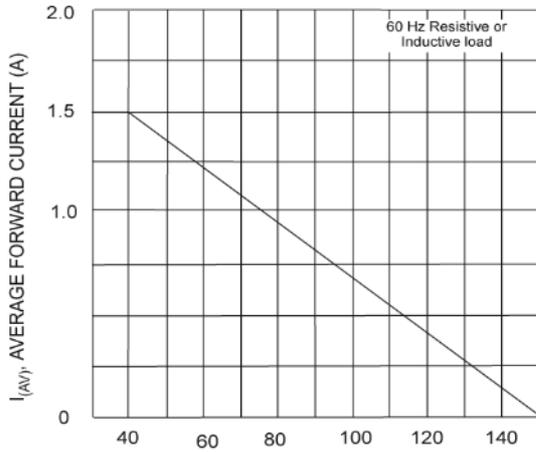
Note:1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



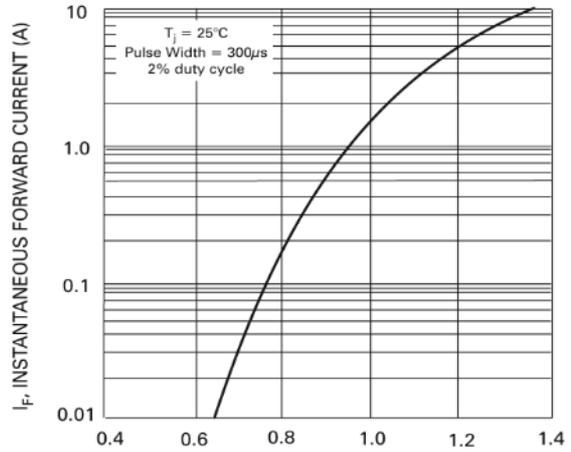
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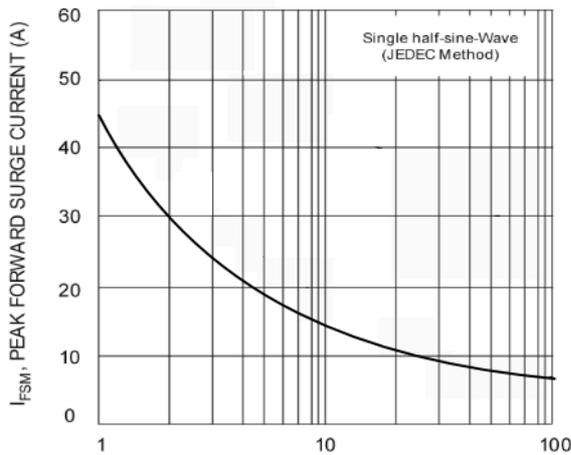
Characteristic Curves ($T_A=25\text{ }^\circ\text{C}$ unless otherwise noted)



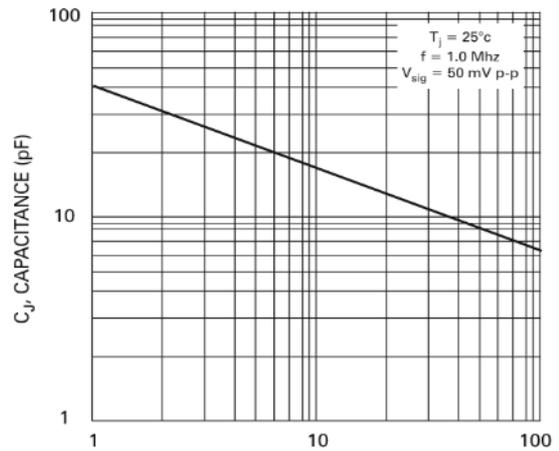
T_A , AMBIENT TEMPERATURE ($^\circ\text{C}$)
Fig. 1 Output Current Derating Curve



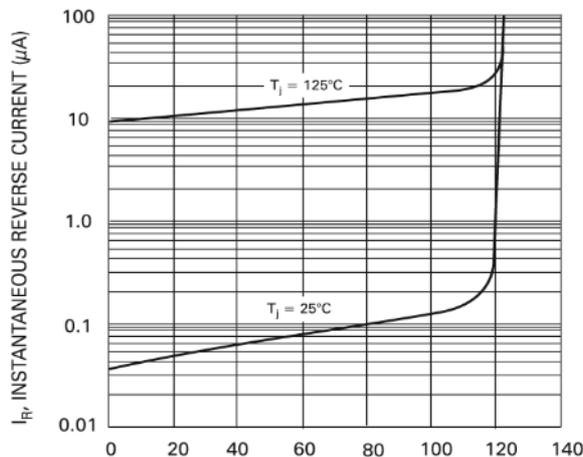
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typ Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive Peak Forward Surge Current



V_R , REVERSE VOLTAGE (V)
Fig. 4 Typ Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 5 Typ Reverse Characteristics (per element)