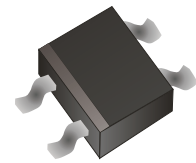


DB101S-G Thru. DB107S-G

Reverse Voltage: 50 to 1000V

Forward Current: 1.0A

RoHS Device

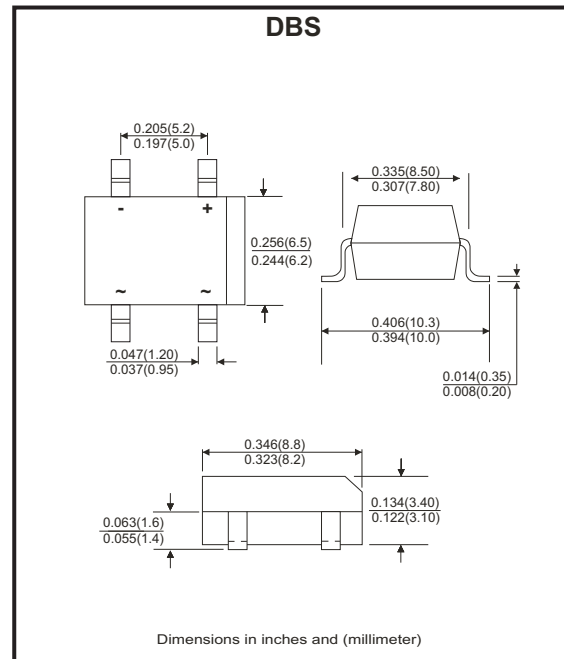


Features

- Rating to 1000V PRV.
- Ideal for printed circuit board.
- Low forward voltage drop.
- High current capability.
- The plastic material has UL flammability classification 94V-0
- UL recognized file # E349301

Mechanical Data

- Polarity: As marked on Body.
- Weight: 0.38 grams.
- Mounting position: Any.



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%

| Parameter | Symbol | DB 101S-G | DB 102S-G | DB 103S-G | DB 104S-G | DB 105S-G | DB 106S-G | DB 107S-G | Unit |
|--|-----------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|
| Maximum Recurrent 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 |
| Maximum Average Forward Rectified Current @ $T_A=40^\circ C$ | $I_{(AV)}$ | 1.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method) | I_{FSM} | 30 | | | | | | | A |
| Maximum Forward Voltage at 1.0A DC | V_F | 1.1 | | | | | | | V |
| Maximum DC Reverse Current At Rated DC Blocking Voltage @ $T_J=25^\circ C$ @ $T_J=125^\circ C$ | I_R | 10.0 500 | | | | | | | μA |
| $I^2 T$ Rating for Fusing ($t < 8.3ms$) | $I^2 t$ | 3.735 | | | | | | | $A^2 s$ |
| Typical Junction Capacitance Per Element (Note 1) | C_J | 25 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 40 | | | | | | | $^\circ C/W$ |
| Operating Temperature Range | T_J | -55 to +150 | | | | | | | $^\circ C$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | $^\circ C$ |

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance from junction to ambient mounted on P.C.B with 0.5"×0.5" (13×13mm) copper pads.

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REV: F

Rating and Characteristics Curves (DB101S-G Thru. DB107S-G)

Fig.1 - Forward Current Derating Curve

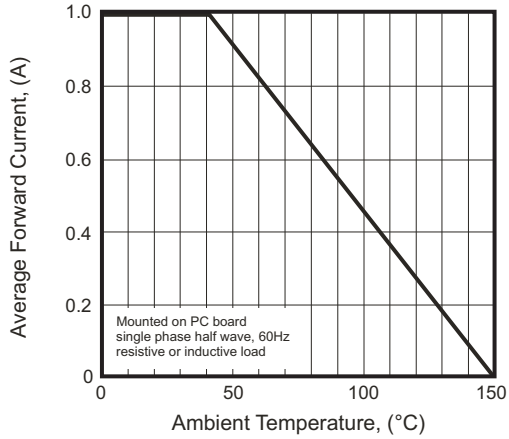


Fig.2 - Max. Non-repetitive Surge Current

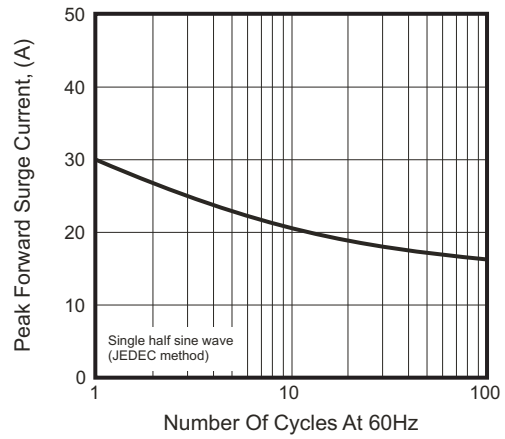


Fig.3 - Typical Junction Capacitance

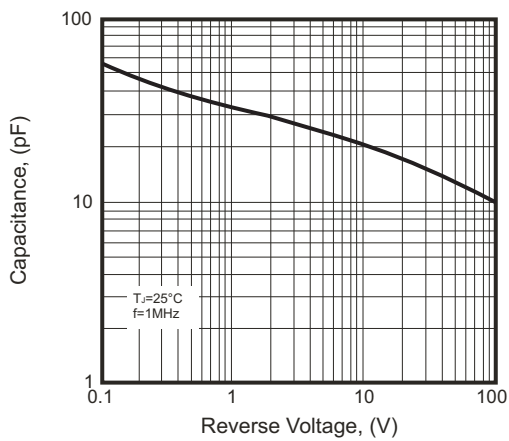


Fig.4 - Typical Forward Characteristics

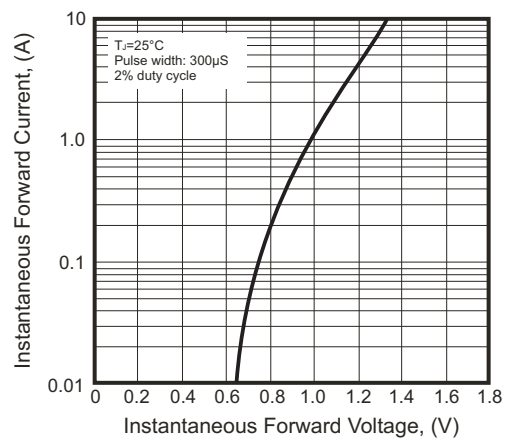
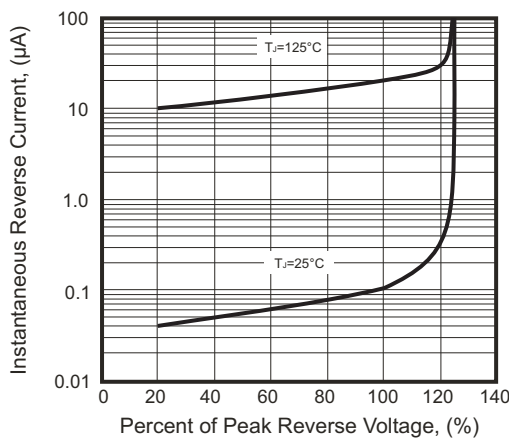
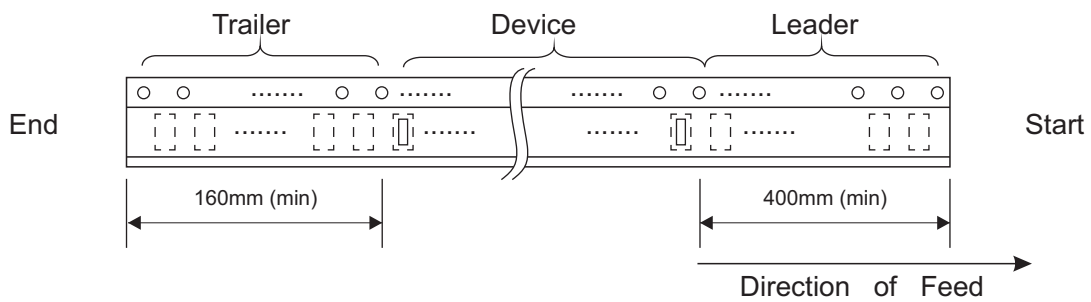
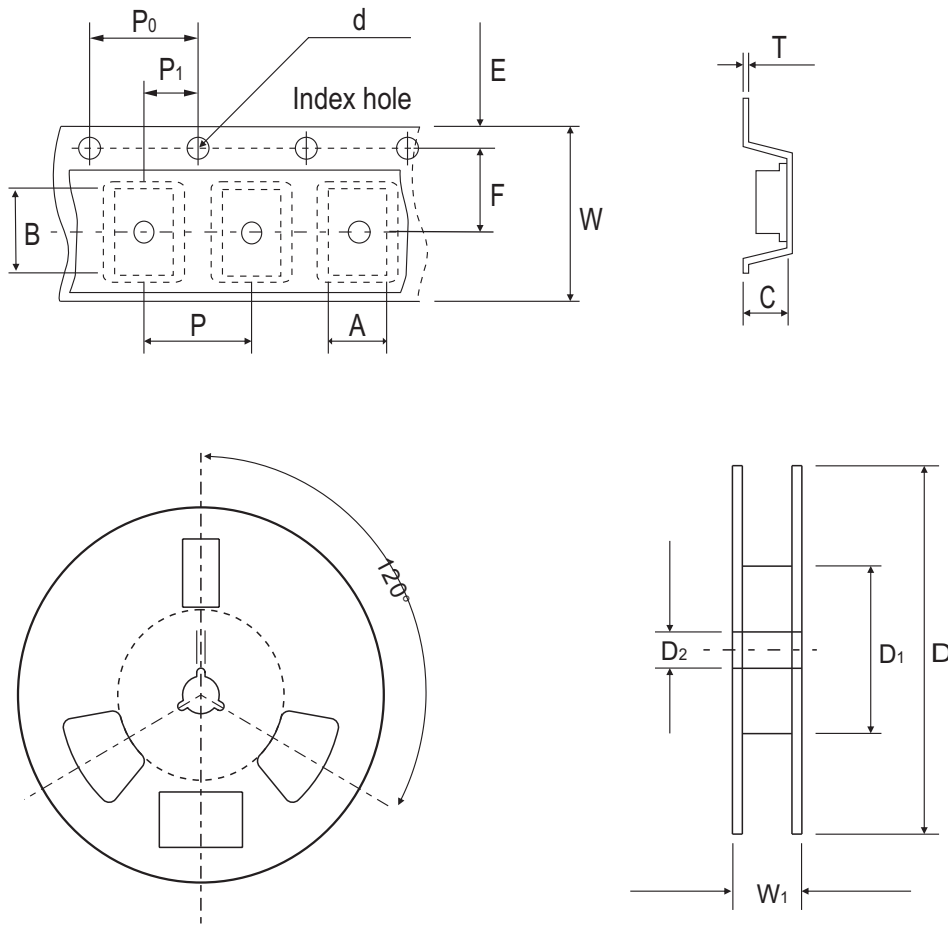


Fig.5 - Typical Reverse Characteristics



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Reel Taping Specification



| DBS | SYMBOL | A | B | C | d | D | D1 | D2 |
|-----|--------|---------------|---------------|---------------|---------------|-----|------------|---------------|
| | (mm) | 8.64 ± 0.10 | 10.41 ± 0.10 | 3.81 ± 0.10 | 1.55 ± 0.05 | 330 | 50.0 MIN. | 13.00 ± 0.20 |
| | (inch) | 0.340 ± 0.004 | 0.409 ± 0.004 | 0.150 ± 0.004 | 0.061 ± 0.002 | 13 | 1.969 MIN. | 0.512 ± 0.008 |

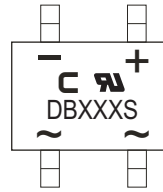
| DBS | SYMBOL | E | F | P | P0 | P1 | T | W | W1 |
|-----|--------|---------------|---------------|---------------|---------------|---------------|-------|---------------|-------------|
| | (mm) | 1.75 ± 0.10 | 7.50 ± 0.05 | 12.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.10 | 0.32 | 16.00 ± 0.30 | 16.00~18.40 |
| | (inch) | 0.069 ± 0.004 | 0.295 ± 0.002 | 0.472 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.004 | 0.013 | 0.630 ± 0.012 | 0.630~0.724 |

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REV: F

Marking Code

| Part Number | Marking code | Packaging |
|-------------|--------------|-----------|
| DB101SP-G | DB101S | Tube |
| DB102SP-G | DB102S | Tube |
| DB103SP-G | DB103S | Tube |
| DB104SP-G | DB104S | Tube |
| DB105SP-G | DB105S | Tube |
| DB106SP-G | DB106S | Tube |
| DB107SP-G | DB107S | Tube |
| DB101ST-G | DB101S | Reel |
| DB102ST-G | DB102S | Reel |
| DB103ST-G | DB103S | Reel |
| DB104ST-G | DB104S | Reel |
| DB105ST-G | DB105S | Reel |
| DB106ST-G | DB106S | Reel |
| DB107ST-G | DB107S | Reel |



XXX = Product type marking code
C = Comchip Logo

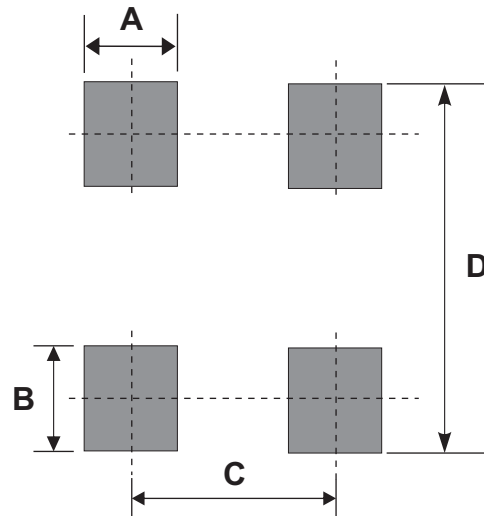
Note:

1) Suffix code after part number to specify packaging item .

| Packaging | Code |
|-----------|------|
| TUBE PACK | P |
| REEL PACK | T |

Suggested PAD Layout

| SIZE | DBS | |
|------|-----------|-----------|
| | (mm) | (inch) |
| A | 1.20 Min | 0.047 Min |
| B | 1.52 Min | 0.060 Min |
| C | 5.21 Ref | 0.205 Ref |
| D | 10.26 Max | 0.404 Max |



Standard Packaging

| Case Type | TUBE PACK | |
|-----------|--------------|-------------|
| | TUBE (pcs) | BOX (pcs) |
| DBS | 50 | 5,000 |

| Case Type | REEL PACK | |
|-----------|--------------|------------------|
| | REEL (pcs) | Reel Size (inch) |
| DBS | 1,000 | 13 |

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