# Glass Passivated Bridge Rectifier

**DXK**

| Voltage | 1000 V | Current | 3A |
|---|---|---|---|

## Features

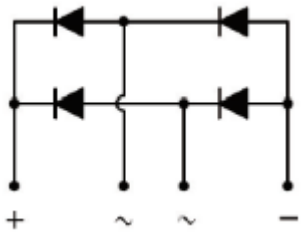
- Ideal for printed circuit boards
- UL recognition file number E526209
- Lead free in compliance with EU RoHS 2.0
- Halogen-free according to IEC 61249 standard


## Mechanical Data

- Case : DXK Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 1.29 grams

## Application

- USB PD & NB Adapter(<65W)
- Monitor power adapter (<100W)
- Consumer Power (<150W)
- Quick Charger (>45W)




| Key Parameters | |
|---|---|
| **Parameter** | **Value** |
| $V_{RRM}$ | 1000V |
| $I_F(AV)$ | 3A |
| $I_{FSM}$ | 90A |
| $I_R$ | 5uA |
| Package | DXK |

## Maximum Ratings and Thermal Characteristics ($T_A$ = 25 °C unless otherwise noted)

| PARAMETER | | SYMBOL | LIMIT | UNITS |
|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | | $V_{RRM}$ | 1000 | V |
| Maximum RMS Voltage | | $V_{RMS}$ | 700 | V |
| Maximum DC Blocking Voltage | | $V_{DC}$ | 1000 | V |
| Maximum Average Forward Current | With heatsink | $I_{F(AV)}$ | 3 | A |
| | Without heatsink | | 1.9 | |
| Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load | @ $T_A$ = 25 °C | $I_{FSM}$ | 90 | A |
| | @ $T_A$ = 125 °C | | 72 | |
| Peak Forward Surge Current : 1.0 ms Single Half Square -Wave Superimposed On Rated Load | @ $T_A$ = 25 °C | $I_{FSM}$ | 170 | A |
| | @ $T_A$ = 125 °C | | 128 | |
| $I^2t$ rating for fusing ( t = 8.3ms) | | $I^2t$ | 33.6 | $A^2S$ |
| Typical Junction Capacitance<br>Measured at 1 MHZ And Applied $V_R$ = 4 V | | $C_J$ | 28 | pF |
| Typical Thermal Resistance (Note 1) (with heatsink) | | $R_{\theta JA}$ | 17 | °C/W |
| | | $R_{\theta JL}$ | 8 | |
| | | $R_{\theta Jc}$ | 7 | |
| Operating junction and storage temperature range | | $T_J$, $T_{STG}$ | -55~150 | °C |
| Mounting torque @ Recommend torque:5Kg.cm | | Tor | 8 | Kg.cm |

## Electrical Characteristics ($T_A$ = 25 °C unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNITS |
|---|---|---|---|---|---|---|
| Forward Voltage | $V_F$ | $I_F$ = 1.5 A, $T_J$ = 25 °C | - | - | 1.05 | V |
| Reverse Current | $I_R$ | $V_R$ = 1000 V, $T_J$ = 25 °C | - | - | 5 | uA |
| | | $V_R$ = 1000 V, $T_J$ = 125 °C | - | - | 100 | |

NOTES :

1. Device mounted on 10 cm * 9.4 cm * 2.6 cm Fin type heat sink

## TYPICAL CHARACTERISTIC CURVES

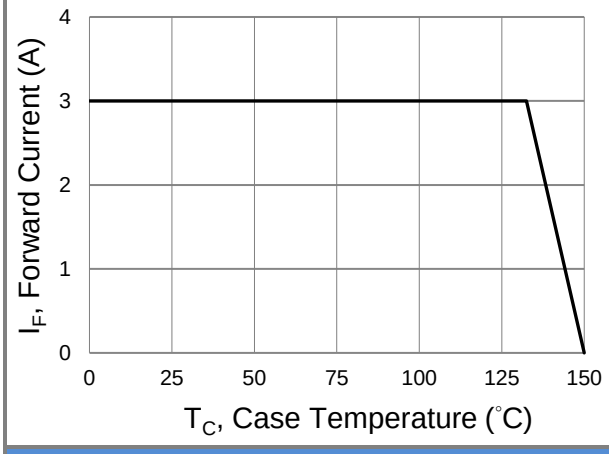



Fig.1 Forward Current Derating Curve

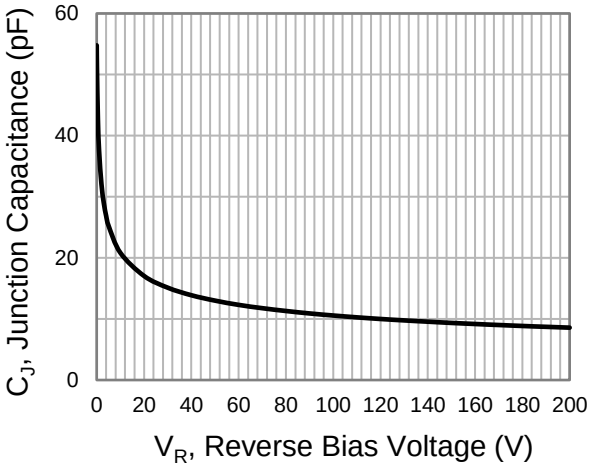



Fig.2 Typical Junction Capacitance

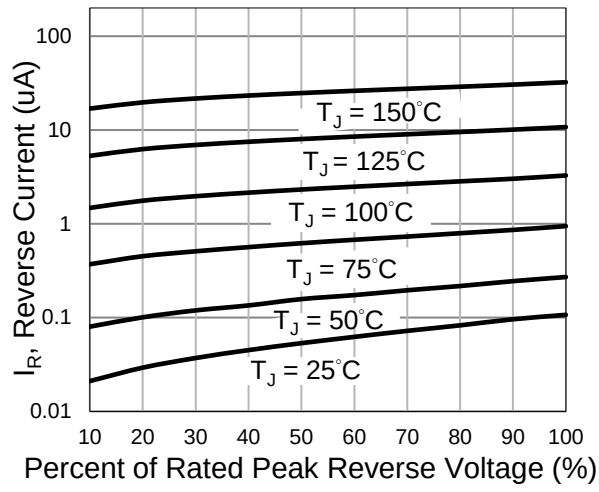



Fig.3 Typical Reverse Characteristics

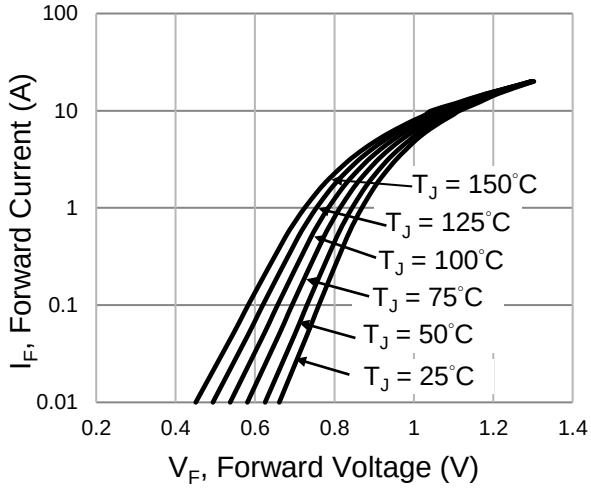


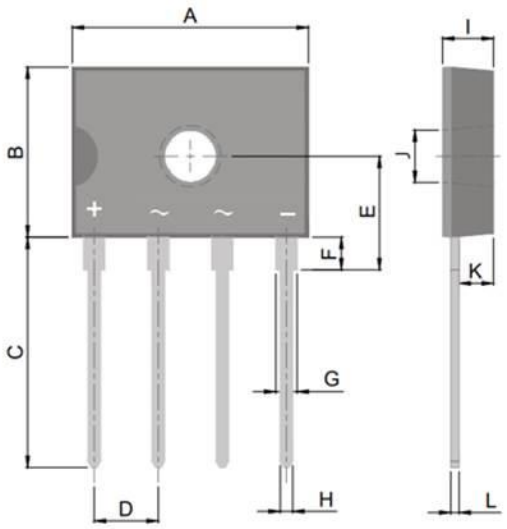

Fig.4 Typical Forward Characteristics

## Product and Packing Information

| Part No. | Package Type | Packing Type | Marking |
|---|---|---|---|
| DXK310 | DXK | 35pcs / Tube | DXK310 |

## Packaging Information

DXK Dimension — Unit: inch(mm)




| DXK Dimension.Unit:Inch (mm) | | | | |
|---|---|---|---|---|
| Dim | Unit (Inch) | | Unit (mm) | |
| | Min | Max | Min | Max |
| A | 0.559 | 0.579 | 14.20 | 14.70 |
| B | 0.398 | 0.421 | 10.10 | 10.70 |
| C | 0.543 | 0.567 | 13.80 | 14.40 |
| D | 0.146 | 0.154 | 3.71 | 3.91 |
| E | 0.262 | 0.285 | 6.65 | 7.25 |
| F | 0.070 | 0.090 | 1.80 | 2.20 |
| G | 0.043 | 0.059 | 1.10 | 1.50 |
| H | 0.026 | 0.034 | 0.66 | 0.86 |
| I | 0.114 | 0.13 | 2.90 | 3.30 |
| J | Ø0.122 | Ø0.130 | Ø3.10 | Ø3.30 |
| K | 0.071 | 0.095 | 1.80 | 2.40 |
| L | 0.014 | 0.024 | 0.35 | 0.60 |

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