### Sonic Fast Recovery Diode

**High Performance Fast Recovery**
**Low Loss and Soft Recovery**
**Common Cathode**

**Part number**
DHG 40 C 600 HB

**Features / Advantages:**
- Planar passivated chips
- Very low leakage current
- Very short recovery time
- Improved thermal behaviour
- Very low lrm-values
- Very soft recovery behaviour
- Avalanche voltage rated for reliable operation
- Soft reverse recovery for low EMI/RFI
- Low lrm reduces:
  - Power dissipation within the diode
  - Turn-on loss in the commutating switch

**Applications:**
- Antiparallel diode for high frequency switching devices
- Antisaturation diode
- Snubber diode
- Free wheeling diode
- Rectifiers in switch mode power supplies (SMPS)
- Uninterruptible power supplies (UPS)

**Package:**
- Housing: TO-247
- Industry standard outline
- Epoxy meets UL 94V-0
- RoHS compliant

**Symbol** | **Definition** | **Conditions** | **Ratings**
--- | --- | --- | ---
\( V_{RRM} \) | max. repetitive reverse voltage | \( T_{VJ} = 25^\circ C \) | 600 | \( V \)
\( I_R \) | reverse current | \( V_R = 600 \text{V} \) | 30 | \( \mu \text{A} \)
\( I_F \) | forward voltage | \( T_{VJ} = 25^\circ C \) | 2.31 | \( V \)
\( I_{FAV} \) | average forward current | \( T_{VJ} = 150^\circ C \) | 2.15 | \( V \)
\( I_{RSM} \) | max. forward surge current | \( T_{VJ} = 45^\circ C \) | 150 | \( A \)
\( I_{RM} \) | max. reverse recovery current | \( T_{VJ} = 25^\circ C \) | 8 | \( A \)
\( t_{rr} \) | reverse recovery time | \( T_{VJ} = 25^\circ C \) | 35 | ns
\( C_J \) | junction capacitance | \( T_{VJ} = 25^\circ C \) | tbd | \( pF \)

IXYS reserves the right to change limits, conditions and dimensions.

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Data according to IEC 60747 and per diode unless otherwise specified

20070507
**Advanced**

**IRMS Aper pin 70**

**RthCH K/W0.25**

**MD Nm1.2**

**mounting torque 0.8**

**Tstg °C150**

**storage temperature -55**

**Weight 6 g**

**F_c mounting force with clip 0.8 1.2 Nm**

**M_d mounting torque 20 120 N**

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1) $I_{RMS}$ is typically limited by: 1. pin-to-chip resistance; or by 2. current capability of the chip.

In case of 1, a common cathode/anode configuration and a non-isolated backside, the whole current capability can be used by connecting the backside.

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**Product Marking**

**Logo**

**Marking on product abcdef**

**DateCode YYWW**

**Assembly Code XYYYY**

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**Part number**

- **DHG 40 C 600 HB**
- **DHG 40 C 1200 HB**
- **DHG 40 C 600 PB**

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**Ordering**

- **Part Name**
- **Marking on Product**
- **Delivering Mode**
- **Base Qty**
- **Code Key**

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**Similar Part**

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