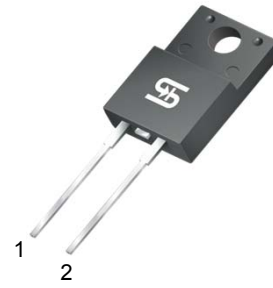


## 8A, 600V Isolated Ultra Fast Rectifier

### FEATURES

- High efficiency, Low VF
- High surge current capability
- High current capability
- High reliability
- Low power loss
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21



### MECHANICAL DATA

**Case:** ITO-220AC

Molding compound, UL flammability classification rating 94V-0

Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free)

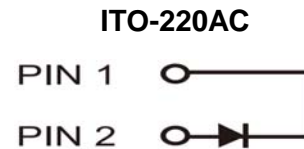
**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

**Polarity:** As marked

**Mounting torque:** 0.56 Nm max.

**Weight:** 1.7 g (approximately)



| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)                            |                    |              |      |
|---|--------------------|--------------|------|
| PARAMETER   | SYMBOL             | UGF8J        | UNIT |
| Maximum repetitive peak reverse voltage   | V <sub>RRM</sub>   | 600          | V    |
| Maximum RMS voltage   | V <sub>RMS</sub>   | 420          | V    |
| Maximum DC blocking voltage   | V <sub>DC</sub>    | 600          | V    |
| Maximum average forward rectified current   | I <sub>F(AV)</sub> | 8            | A    |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load                                     | I <sub>FSM</sub>   | 65           | A    |
| Maximum instantaneous forward voltage<br>T <sub>J</sub> =25°C<br>I <sub>F</sub> = 8 A (Note 1)<br>T <sub>J</sub> =125°C | V <sub>F</sub>     | 2.9<br>2.0   | V    |
| Maximum reverse current @ rated V <sub>R</sub><br>T <sub>J</sub> =25°C<br>T <sub>J</sub> =125°C                         | I <sub>R</sub>     | 30<br>200    | μA   |
| Maximum reverse recovery time (Note 2)  | t <sub>rr</sub>    | 25           | ns   |
| Typical thermal resistance  | R <sub>θJC</sub>   | 5.5          | °C/W |
| 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: Pulse test with PW=300μs, 1% duty cycle

Note 2: Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

**ORDERING INFORMATION**

| PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX (*) | PACKAGE   | PACKING   |
|----------|-----------------|--------------|-------------------------|-----------|-----------|
| UGF8J    | H               | C0           | G                       | ITO-220AC | 50 / Tube |

\*: Optional available

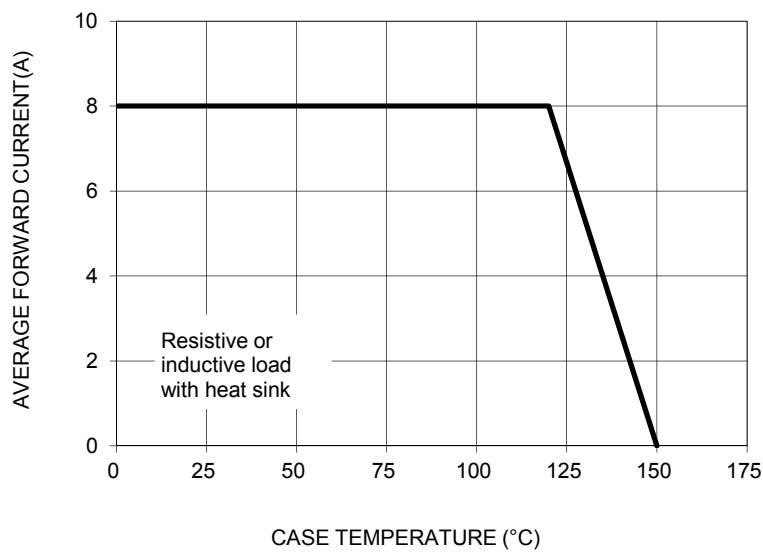
**EXAMPLE**

| EXAMPLE P/N | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION                          |
|-------------|----------|-----------------|--------------|---------------------|--------------------------------------|
| UGF8JHC0G   | UGF8J    | H               | C0           | G                   | AEC-Q101 qualified<br>Green compound |

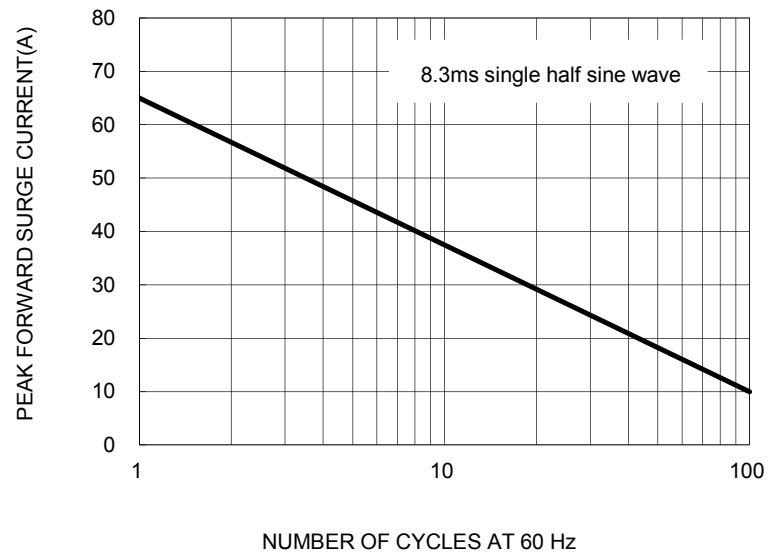
**RATINGS AND CHARACTERISTICS CURVES**

(T<sub>A</sub>=25°C unless otherwise noted)

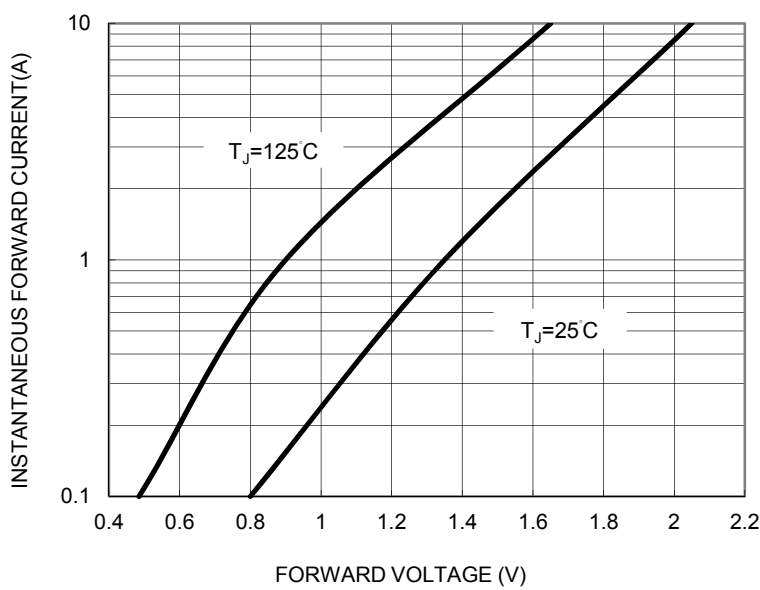
**FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE**



**FIG. 2 MAXIMUM FORWARD SURGE CURRENT**



**FIG. 3 TYPICAL FORWARD CHARACTERISTICS**



**FIG. 4 TYPICAL REVERSE CHARACTERISTICS**

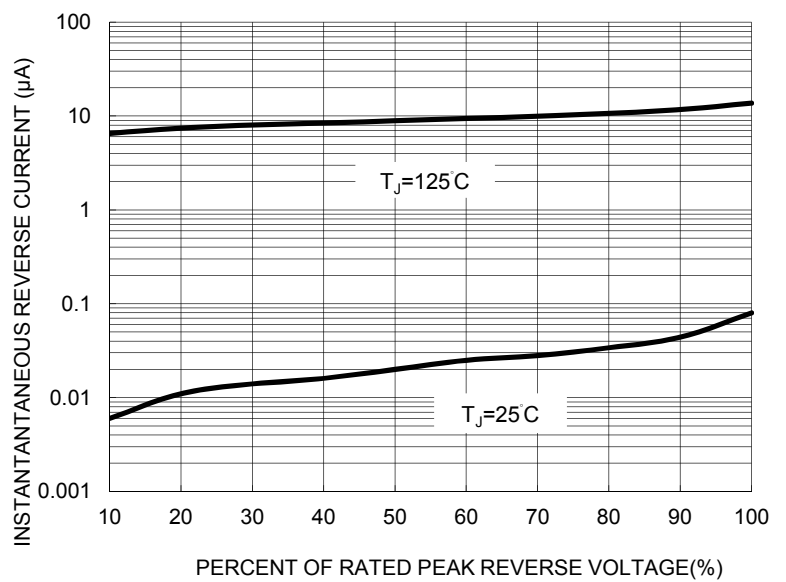
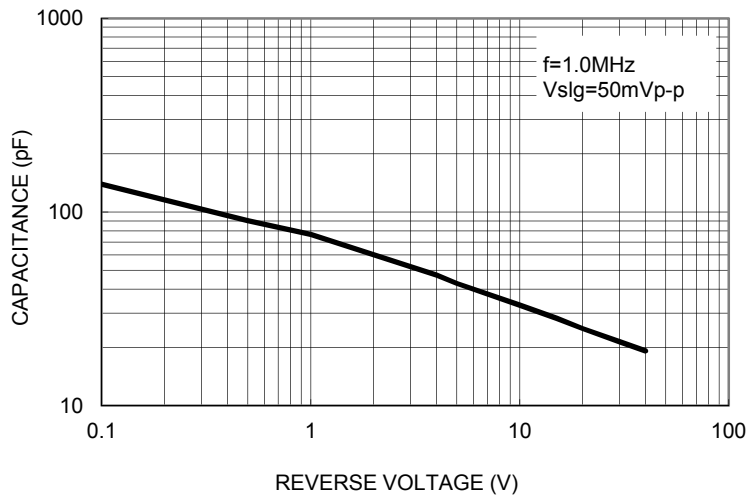
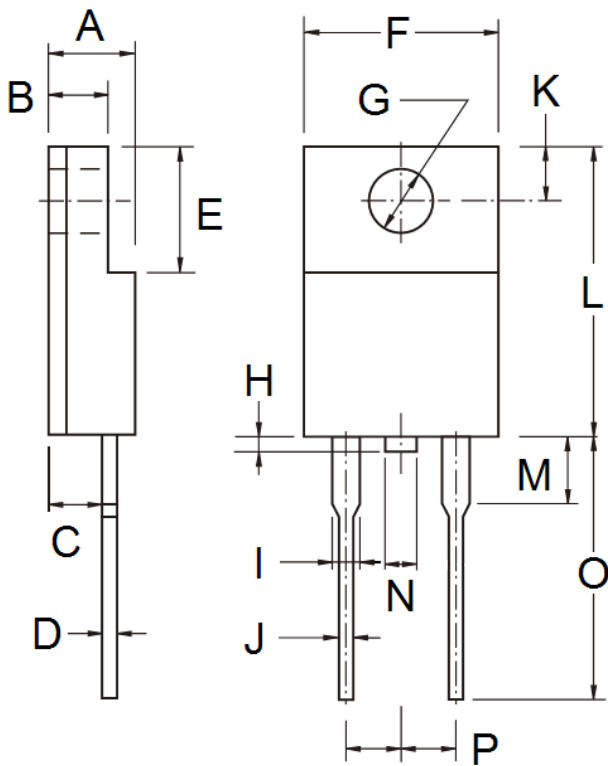


FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS

ITO-220AC



| DIM. | Unit (mm) |       | Unit (inch) |       |
|------|-----------|-------|-------------|-------|
|      | Min       | Max   | Min         | Max   |
| A    | 4.30      | 4.70  | 0.169       | 0.185 |
| B    | 2.50      | 3.10  | 0.098       | 0.122 |
| C    | 2.30      | 2.90  | 0.091       | 0.114 |
| D    | 0.46      | 0.76  | 0.018       | 0.030 |
| E    | 6.30      | 6.90  | 0.248       | 0.272 |
| F    | 9.60      | 10.30 | 0.378       | 0.406 |
| G    | 3.00      | 3.40  | 0.118       | 0.134 |
| H    | 0.00      | 1.60  | 0.000       | 0.063 |
| I    | 0.95      | 1.45  | 0.037       | 0.057 |
| J    | 0.50      | 0.90  | 0.020       | 0.035 |
| K    | 2.40      | 3.20  | 0.094       | 0.126 |
| L    | 14.80     | 15.50 | 0.583       | 0.610 |
| M    | -         | 4.10  | -           | 0.161 |
| N    | -         | 1.80  | -           | 0.071 |
| O    | 12.60     | 13.80 | 0.496       | 0.543 |
| P    | 4.95      | 5.20  | 0.195       | 0.205 |

MARKING DIAGRAM



- P/N = Specific Device Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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