

- Ultrafast recovery time for high efficiency
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



**DO-214AB (SMC)**

**MECHANICAL DATA**

**Case:** DO-214AB (SMC)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - green compound (halogen-free)

Base P/N with prefix "H" on packing code - AEC-Q101 qualified

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

Meet JESD 201 class 1A whisker test

with prefix "H" on packing code meet JESD 201 class 2 whisker test

**Polarity:** Indicated by cathode band

**Weight:** 0.21 g (approximately)

| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)                |                    |                |          |          |          |              |
|---|--------------------|----------------|----------|----------|----------|--------------|
| PARAMETER   | SYMBOL             | MUR 305S       | MUR 310S | MUR 315S | MUR 320S | MUR 340S     |
| Maximum repetitive peak reverse voltage   | V <sub>RRM</sub>   | 50             | 100      | 150      | 200      | 400          |
| Maximum RMS voltage   | V <sub>RMS</sub>   | 35             | 70       | 105      | 140      | 280          |
| Maximum DC blocking voltage   | V <sub>DC</sub>    | 50             | 100      | 150      | 200      | 400          |
| Maximum average forward rectified current   | I <sub>F(AV)</sub> | 3              |          |          |          |              |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load                         | I <sub>FSM</sub>   | 75             |          |          |          |              |
| Maximum instantaneous forward voltage (Note 1)<br>I <sub>F</sub> = 3 A, 25°C<br>I <sub>F</sub> = 3 A, 150°C | V <sub>F</sub>     | 0.875<br>0.710 |          |          |          | 1.25<br>1.05 |
| Maximum reverse current @ rated VR<br>T <sub>J</sub> =25 °C<br>T <sub>J</sub> =150 °C                       | I <sub>R</sub>     | 5<br>150       |          |          |          | 10<br>250    |
| Maximum reverse recovery time (Note 2)  | T <sub>rr</sub>    | 25             |          |          |          | 50           |
| Typical thermal resistance  | R <sub>θJL</sub>   | 11             |          |          |          |              |
| Operating junction temperature range  | T <sub>J</sub>     | - 55 to +175   |          |          |          |              |
| Storage temperature range   | T <sub>STG</sub>   | - 55 to +175   |          |          |          |              |

Note 1: Pulse test with PW=300µs, 1% duty cycle

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

EXAMPLE

| PREFERRED P/N | PART NO. | AEC-Q101 QUALIFIED | PACKING CODE | GREEN COMPOUND CODE | DESC  |
|---------------|----------|--------------------|--------------|---------------------|-------|
| MUR360S R7    | MUR360S  |                    | R7           |                     |       |
| MUR360S R7G   | MUR360S  |                    | R7           | G                   | Green |
| MUR360SHR7    | MUR360S  | H                  | R7           |                     | AEC-Q |

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

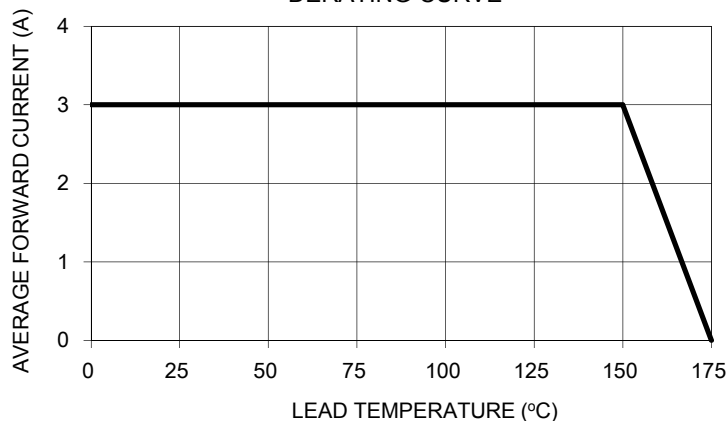


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

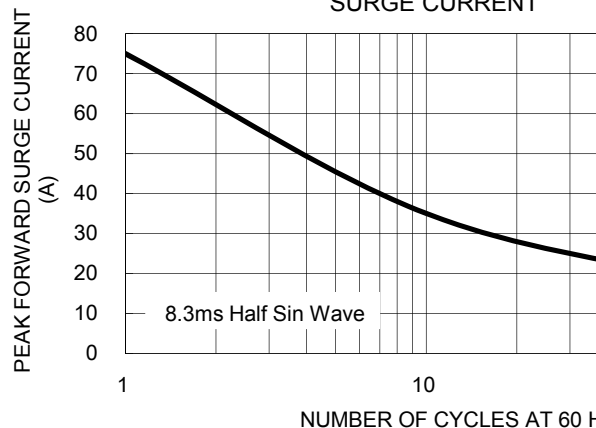


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

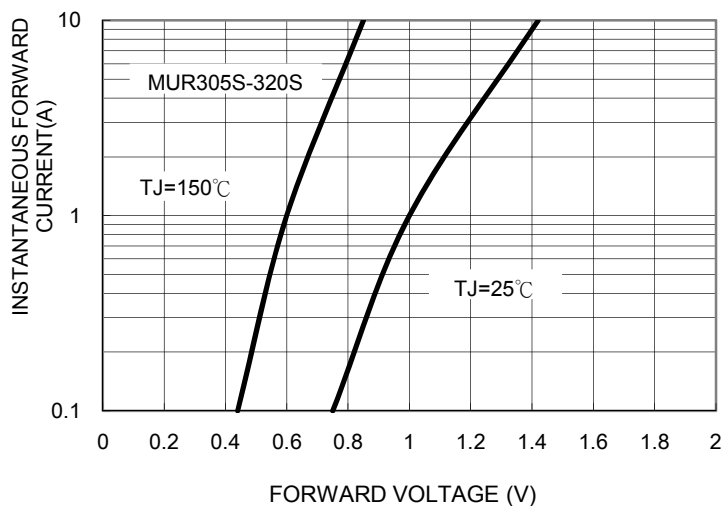
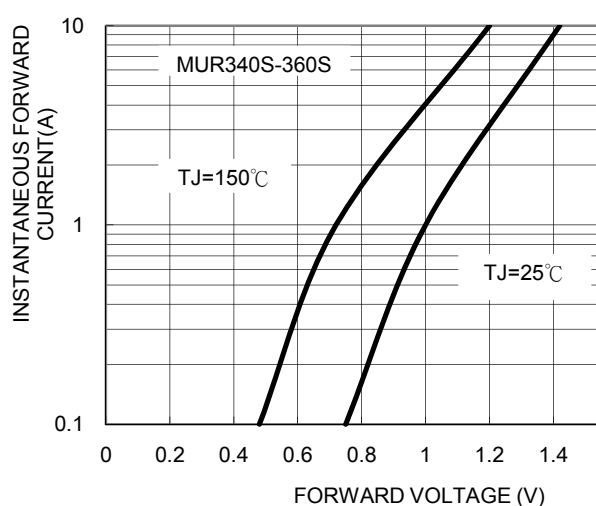


FIG. 4 TYPICAL FORWARD CHARACTERISTICS



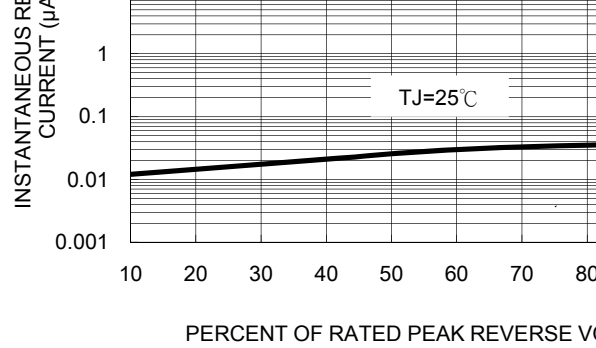
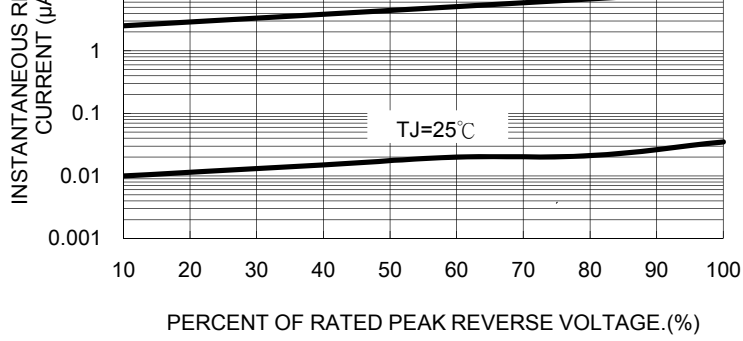
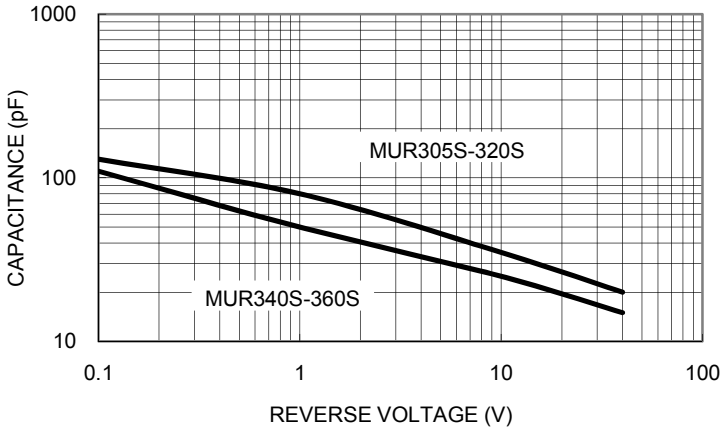
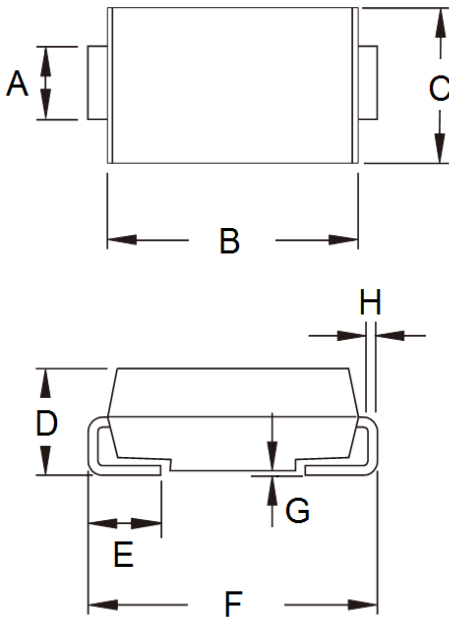


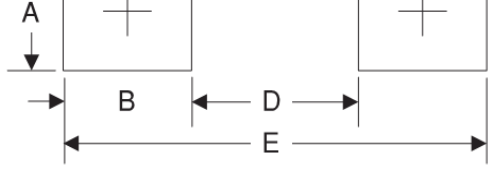
FIG. 7 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS



| DIM. | Unit (mm) |      | Unit (inch) |       |
|------|-----------|------|-------------|-------|
|      | Min       | Max  | Min         | Max   |
| A    | 2.90      | 3.20 | 0.114       | 0.126 |
| B    | 6.60      | 7.11 | 0.260       | 0.280 |
| C    | 5.59      | 6.22 | 0.220       | 0.245 |
| D    | 2.00      | 2.62 | 0.079       | 0.103 |
| E    | 1.00      | 1.60 | 0.039       | 0.063 |
| F    | 7.75      | 8.13 | 0.305       | 0.320 |
| G    | 0.10      | 0.20 | 0.004       | 0.008 |
| H    | 0.15      | 0.31 | 0.006       | 0.012 |



|   |     |       |
|---|-----|-------|
| B | 2.5 | 0.098 |
| C | 6.8 | 0.268 |
| D | 4.4 | 0.173 |
| E | 9.4 | 0.370 |

## MARKING DIAGRAM



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

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