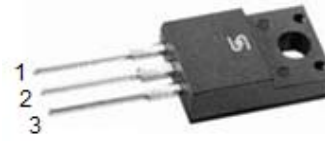
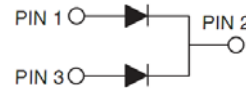


## Dual Common Cathode Schottky Rectifier

### FEATURES

- Low power loss, high efficiency
- Guardring for overvoltage protection
- High surge current capability
- 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 definition


**ITO-220AB**


### MECHANICAL DATA

**Case:** ITO-220AB

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - 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:** As marked

**Mounting torque:** 5 in-lbs maximum

**Weight:** 1.7 g (approximately)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

| PARAMETER                                                                                                      | SYMBOL             | SRF<br>1620  | SRF<br>1630 | SRF<br>1640 | SRF<br>1650 | SRF<br>1660  | SRF<br>1690 | SRF<br>16100 | SRF<br>16150 | UNIT |
|----------------------------------------------------------------------------------------------------------------|--------------------|--------------|-------------|-------------|-------------|--------------|-------------|--------------|--------------|------|
| Maximum repetitive peak reverse voltage                                                                        | V <sub>RRM</sub>   | 20           | 30          | 40          | 50          | 60           | 90          | 100          | 150          | V    |
| Maximum RMS voltage                                                                                            | V <sub>RMS</sub>   | 14           | 21          | 28          | 35          | 42           | 63          | 70           | 105          | V    |
| Maximum DC blocking voltage                                                                                    | V <sub>DC</sub>    | 20           | 30          | 40          | 50          | 60           | 90          | 100          | 150          | V    |
| Maximum average forward rectified current                                                                      | I <sub>F(AV)</sub> | 16           |             |             |             |              |             |              |              | A    |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load                            | I <sub>FSM</sub>   | 200          |             |             |             |              |             |              |              | A    |
| Maximum instantaneous forward voltage (Note 1)<br>I <sub>F</sub> = 8 A                                         | V <sub>F</sub>     | 0.55         |             |             | 0.70        |              | 0.90        |              | 1.00         | V    |
| Maximum reverse current @ Rated VR<br>T <sub>J</sub> =25 °C<br>T <sub>J</sub> =100 °C<br>T <sub>J</sub> =125°C | I <sub>R</sub>     | 0.5          |             |             |             |              | 0.1         |              |              | mA   |
|                                                                                                                |                    | 15           |             |             | 10          |              | -           |              |              |      |
|                                                                                                                |                    | -            |             |             |             |              | 5           |              |              |      |
| Typical thermal resistance                                                                                     | R <sub>θJC</sub>   | 2.5          |             |             |             |              | 4           |              |              | °C/W |
| Operating junction temperature range                                                                           | T <sub>J</sub>     | - 55 to +125 |             |             |             | - 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

| ORDERING INFORMATION |                    |              |                     |           |           |
|----------------------|--------------------|--------------|---------------------|-----------|-----------|
| PART NO.             | AEC-Q101 QUALIFIED | PACKING CODE | GREEN COMPOUND CODE | PACKAGE   | PACKING   |
| SRF16xx<br>(Note 1)  | Prefix "H"         | C0           | Suffix "G"          | ITO-220AB | 50 / Tube |

Note 1: "xx" defines voltage from 20V (SRF1620) to 150V (SRF16150)

| EXAMPLE       |          |                    |              |                     |                    |
|---------------|----------|--------------------|--------------|---------------------|--------------------|
| PREFERRED P/N | PART NO. | AEC-Q101 QUALIFIED | PACKING CODE | GREEN COMPOUND CODE | DESCRIPTION        |
| SRF1660 C0    | SRF1660  |                    | C0           |                     |                    |
| SRF1660 C0G   | SRF1660  |                    | C0           | G                   | Green compound     |
| SRF1660HC0    | SRF1660  | H                  | C0           |                     | AEC-Q101 qualified |

### RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

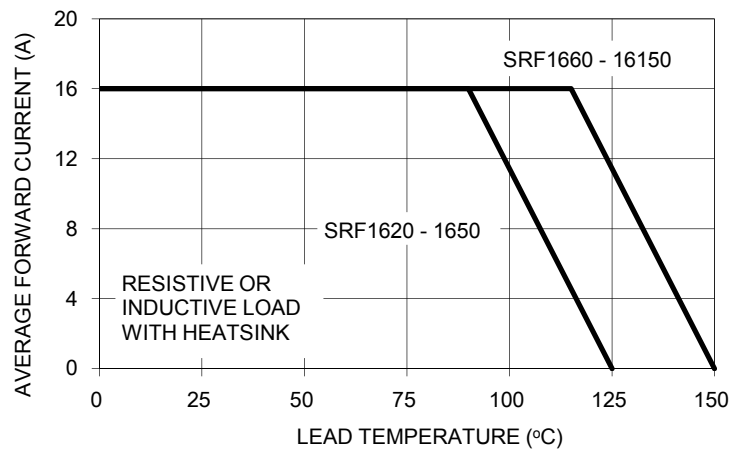


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

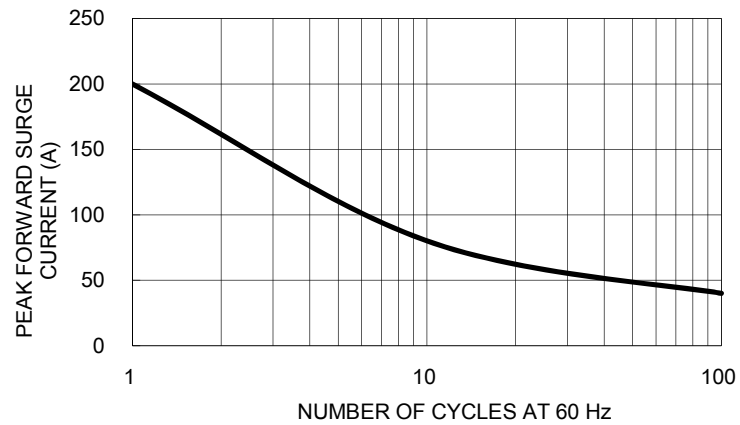


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

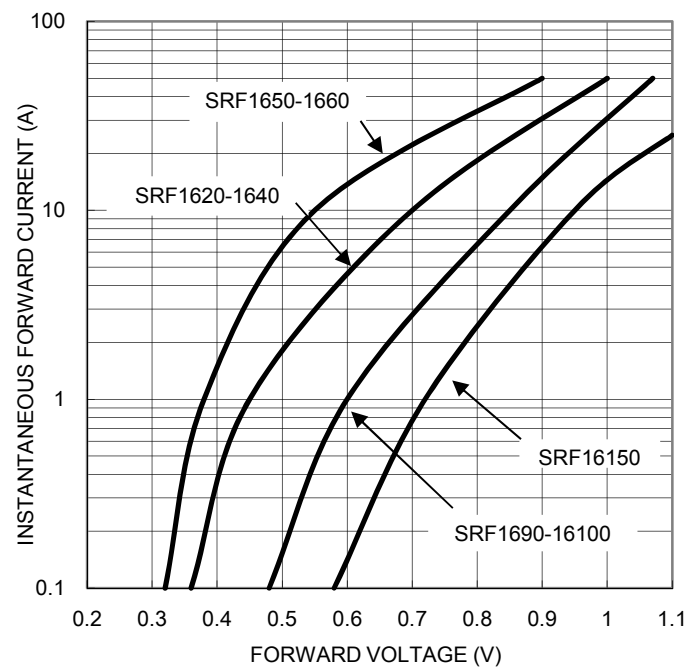


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

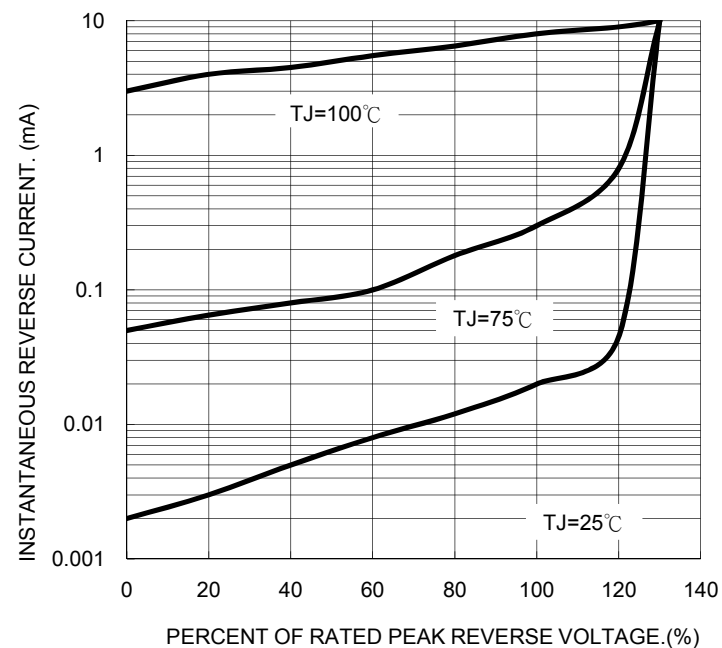


FIG. 5 TYPICAL JUNCTION CAPACITANCE

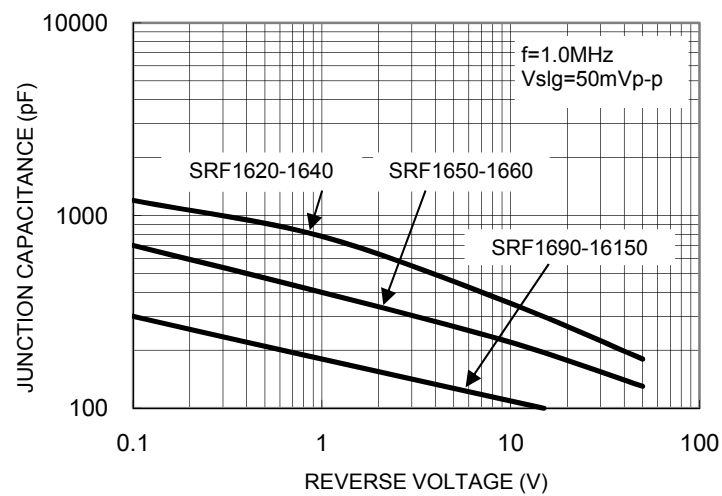
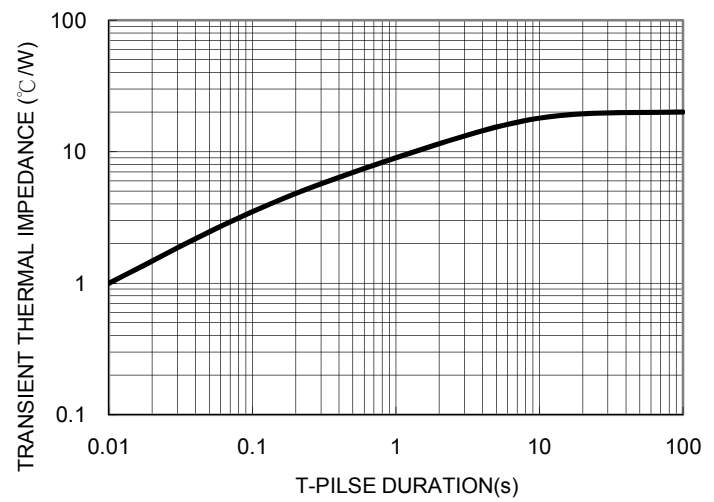
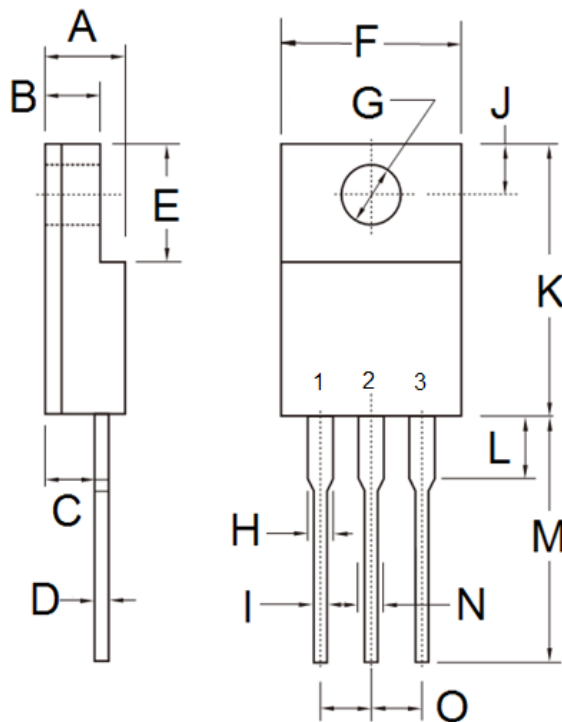


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE



## PACKAGE OUTLINE DIMENSIONS



| DIM. | Unit (mm) |       | Unit (inch) |       |
|------|-----------|-------|-------------|-------|
|      | Min       | Max   | Min         | Max   |
| A    | 4.30      | 4.70  | 0.169       | 0.185 |
| B    | 2.50      | 3.16  | 0.098       | 0.124 |
| C    | 2.30      | 2.96  | 0.091       | 0.117 |
| 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    | 0.95      | 1.45  | 0.037       | 0.057 |
| I    | 0.50      | 0.90  | 0.020       | 0.035 |
| J    | 2.40      | 3.20  | 0.094       | 0.126 |
| K    | 14.80     | 15.50 | 0.583       | 0.610 |
| L    | -         | 4.10  | -           | 0.161 |
| M    | 12.60     | 13.80 | 0.496       | 0.543 |
| N    | -         | 1.80  | -           | 0.071 |
| O    | 2.41      | 2.67  | 0.095       | 0.105 |

## MARKING DIAGRAM



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

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