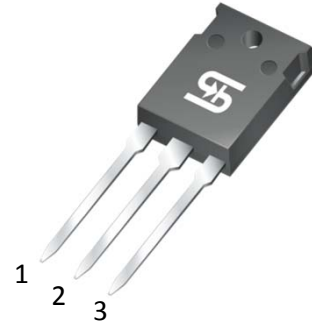


## 20A, 20V - 150V Dual Common Cathode Schottky Rectifiers

### 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



TO-247AD (TO-3P)



### MECHANICAL DATA

**Case:** TO-247AD (TO-3P)

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)

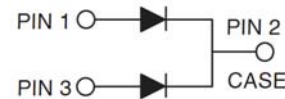
**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

**Polarity:** As marked

**Mounting torque:** 10 in-lbs maximum

**Weight:** 5.6 g (approximately)



| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)                             |                    |                  |                  |                  |                  |                  |                  |                   |                   |      |
|--------------------------------------------------------------------------------------------------------------------------|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|------|
| PARAMETER                                                                                                                | SYMBOL             | SR<br>2020<br>PT | SR<br>2030<br>PT | SR<br>2040<br>PT | SR<br>2050<br>PT | SR<br>2060<br>PT | SR<br>2090<br>PT | SR<br>20100<br>PT | SR<br>20150<br>PT | 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> | 20               |                  |                  |                  |                  |                  |                   |                   | 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> = 10 A                                                  | V <sub>F</sub>     | 0.55             |                  |                  | 0.70             |                  | 0.92             |                   | 1.02              | V    |
| Maximum reverse current @ rated V <sub>R</sub><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>   | 1.5              |                  |                  |                  |                  |                  |                   |                   | °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.             | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX (*) | PACKAGE   | PACKING   |
| SR20xxPT<br>(Note 1) | H               | C0           | G                       | ITO-220AB | 50 / Tube |

Note 1: "xx" defines voltage from 20V (SR2020PT) to 150V (SR20150PT)

\*: Optional available

| EXAMPLE       |          |                 |              |                     |                                      |
|---------------|----------|-----------------|--------------|---------------------|--------------------------------------|
| PREFERRED P/N | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION                          |
| SR2060PTHC0G  | SR2060PT | H               | C0           | G                   | AEC-Q101 qualified<br>Green compound |

## RATINGS AND CHARACTERISTICS CURVES

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

FIG. 1 FORWARD CURRENT DERATING CURVE

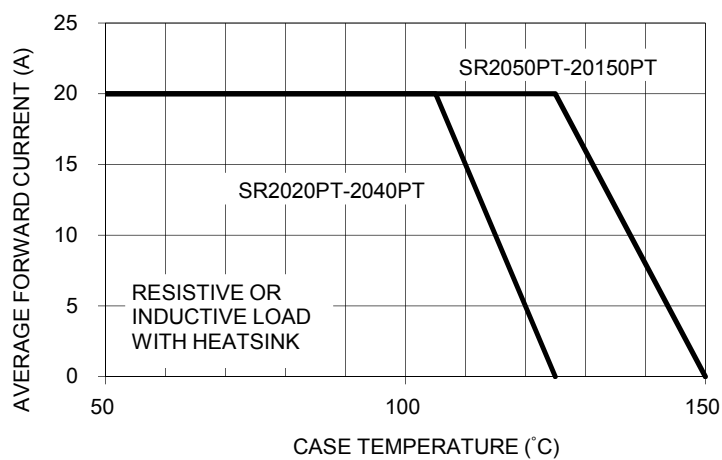


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

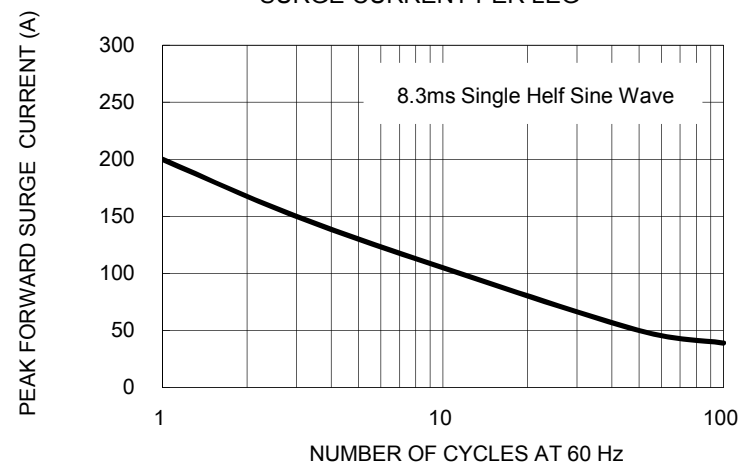


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

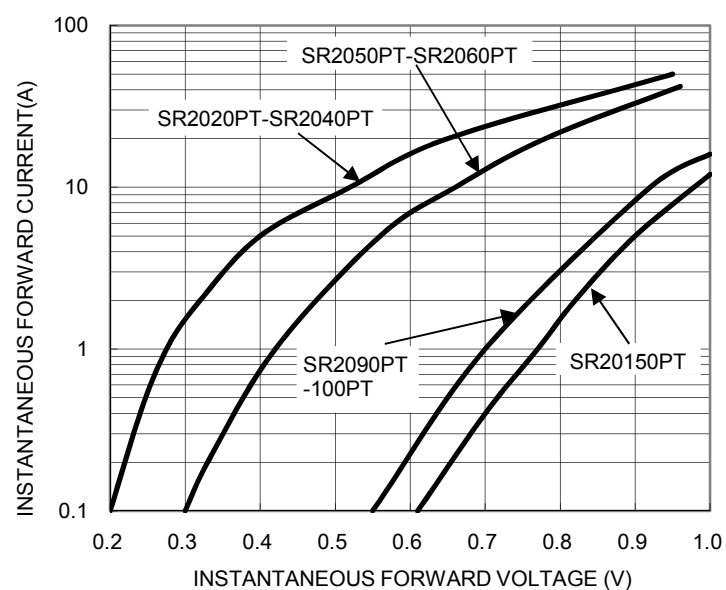


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

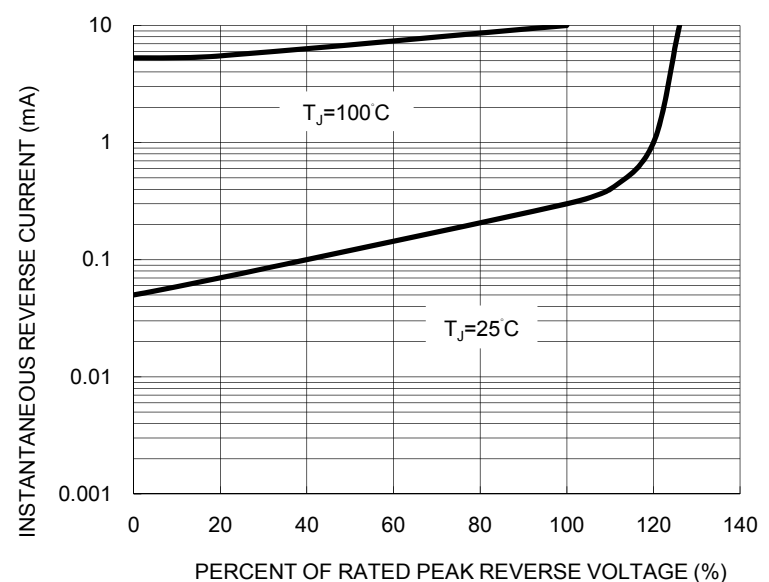


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

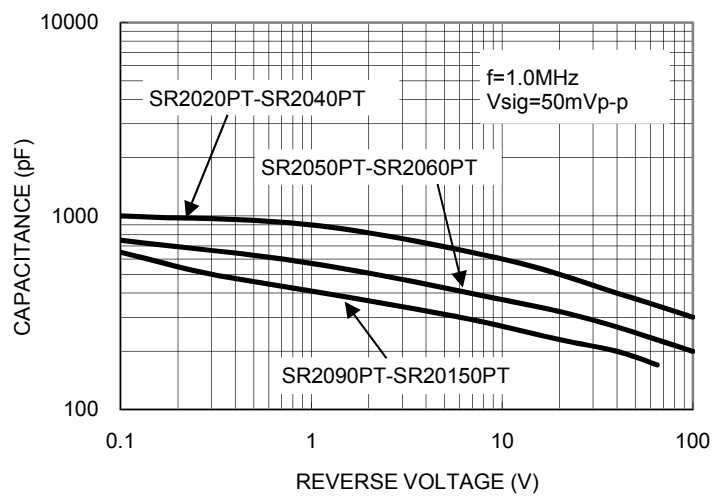
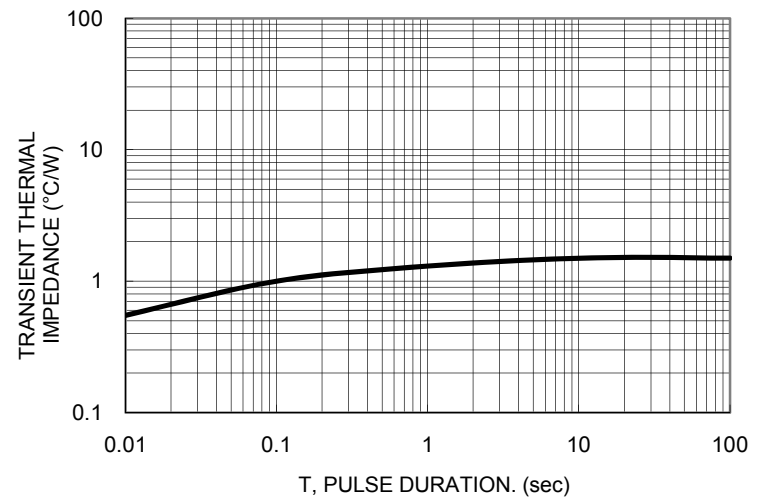
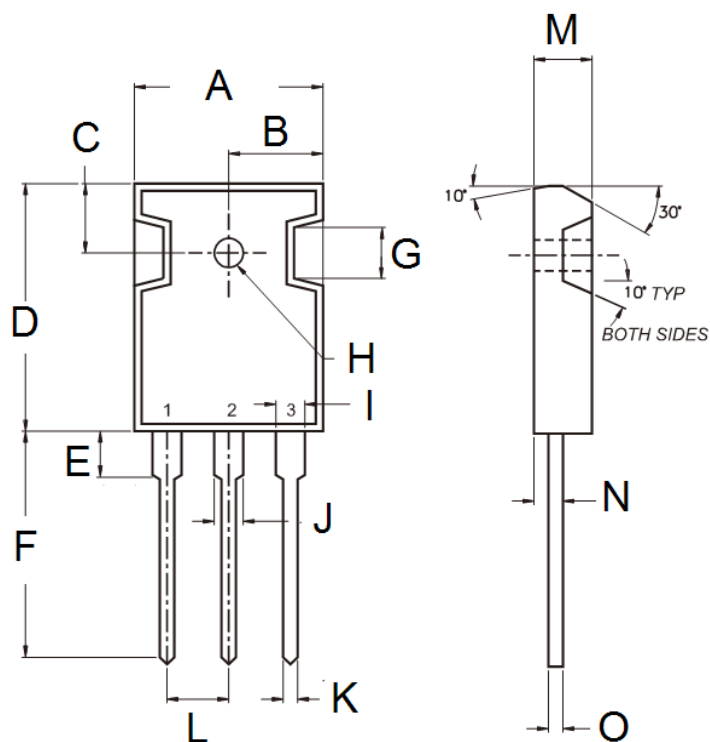


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



**PACKAGE OUTLINE DIMENSIONS**  
**TO-247AD (TO-3P)**



| DIM. | Unit (mm) |       | Unit (inch) |       |
|------|-----------|-------|-------------|-------|
|      | Min       | Max   | Min         | Max   |
| A    | 15.90     | 16.40 | 0.626       | 0.646 |
| B    | 7.90      | 8.20  | 0.311       | 0.323 |
| C    | 5.70      | 6.20  | 0.224       | 0.244 |
| D    | 20.80     | 21.30 | 0.819       | 0.839 |
| E    | 3.50      | 4.10  | 0.138       | 0.161 |
| F    | 19.70     | 20.20 | 0.776       | 0.795 |
| G    | -         | 4.30  | -           | 0.169 |
| H    | 2.90      | 3.40  | 0.114       | 0.134 |
| I    | 1.93      | 2.18  | 0.076       | 0.086 |
| J    | 2.97      | 3.22  | 0.117       | 0.127 |
| K    | 1.12      | 1.22  | 0.044       | 0.048 |
| L    | 5.20      | 5.70  | 0.205       | 0.224 |
| M    | 4.90      | 5.16  | 0.193       | 0.203 |
| N    | 2.70      | 3.00  | 0.106       | 0.118 |
| O    | 0.51      | 0.76  | 0.020       | 0.030 |

**MARKING DIAGRAM**



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

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