

16A, 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

MECHANICAL DATA

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

Molding compound, UL flammability classification rating 94V-0

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

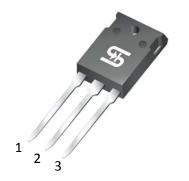
Packing code with suffix "G" means green compound (halogen-free) **Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: As marked

Mounting torque: 10 in-lbs maximum

Weight: 5.6 g (approximately)







| PIN 1 O- | PIN 2 |
|----------|-------|
| PIN 3 O | CASE |

TO-247AD (TO-3P)

| | SR | T | | | | | | | |
|----------------------|--|---|---|---|---|--|---------------------------------------|---------------------------------------|---|
| | SK | SR | SR | SR | SR | SR | SR | SR | |
| SYMBOL | 1620 | 1630 | 1640 | 1650 | 1660 | 1690 | 16100 | 16150 | UNIT |
| | PT | PT | PT | PT | PT | PT | PT | PT | |
| V_{RRM} | 20 | 30 | 40 | 50 | 60 | 90 | 100 | 150 | V |
| V_{RMS} | 14 | 21 | 28 | 35 | 42 | 63 | 70 | 105 | V |
| V_{DC} | 20 | 30 | 40 | 50 | 60 | 90 | 100 | 150 | V |
| I _{F(AV)} | 16 | | | | | | Α | | |
| ave I _{FSM} | 200 | | | | | | Α | | |
| V _F | 0.55 0.70 0.90 1. | | | 1.00 | V | | | | |
| | 0.5 | | | 0.1 | | | | | |
| I _R | 15 | | 10 | | | - | | mA | |
| | | | - | | | | 5 | | |
| $R_{	heta JC}$ | 3.0 | | | | | °C/W | | | |
| TJ | - 55 to +125 - 55 to +150 | | | | °C | | | | |
| T _{STG} | - 55 to +150 | | | | | | °C | | |
| | $\begin{array}{c c} & V_{RRM} \\ & V_{RMS} \\ & V_{DC} \\ & I_{F(AV)} \\ \\ \text{ave} & I_{FSM} \\ & V_{F} \\ & I_{R} \\ & R_{\theta JC} \\ & T_{J} \\ \end{array}$ | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | PT PT PT PT PT V _{RRM} 20 30 40 50 50 V _{RMS} 14 21 28 35 20 30 40 50 50 70 70 70 70 70 7 | PT PT PT PT PT PT PT V _{RMM} 20 30 40 50 60 60 V _{RMS} 14 21 28 35 42 V _{DC} 20 30 40 50 60 60 I _{F(AV)} 16 40 40 40 40 40 40 40 4 | PT PT PT PT PT PT PT PT | PT PT PT PT PT PT PT PT | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ |

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



| ORDERING INFORMATION | | | | | | |
|----------------------|----------|--------------|--------------|-----------|-----------|--|
| PART NO. | PART NO. | PACKING CODE | PACKING CODE | PACKAGE | PACKING | |
| | SUFFIX | | SUFFIX (*) | | | |
| SR16xxPT (Note 1) | Н | C0 | G | ITO-220AB | 50 / Tube | |

Note 1: "xx" defines voltage from 20V (SR1620PT) to 150V (SR16150PT)

^{*:} Optional available

| EXAMPLE | | | | | | |
|---------------|----------|--------------------|--------------|------------------------|--------------------------------------|--|
| PREFERRED P/N | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION | |
| SR1660PTHC0G | SR1660PT | Н | C0 | G | AEC-Q101 qualified Green compound | |

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

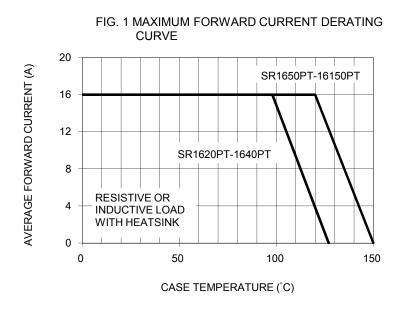


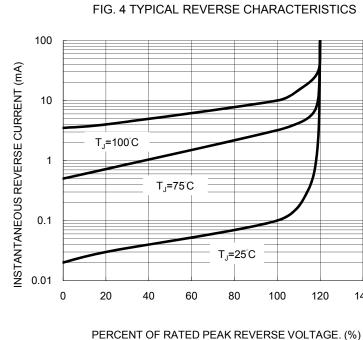
FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PEAK FORWARD SURGE CURRENT (A) 300 250 8.3ms Single Half Sine Wave 200 150 100 50 0 1 10 100 NUMBER OF CYCLES AT 60 Hz

100 Pulse Width=300µs SR1690PT-16100PT 1% Duty cycle INSTANTANEOUS FORWARD CURRENT(A) SR1620PT-1640PT 10 SR1650PT-1660PT SR16150PT 0.1 0.2 0.3 0.4 0.5 0.6 0.7 8.0 0.9 1.0

INSTANTANEOUS FORWARD VOLTAGE. (V)

CHARACTERISTICS

FIG. 3 TYPICAL INSTANTANEOUS FORWARD

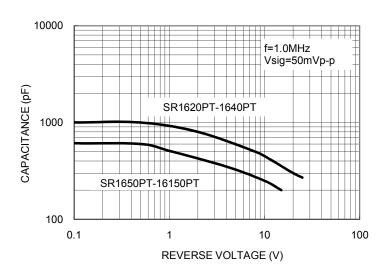


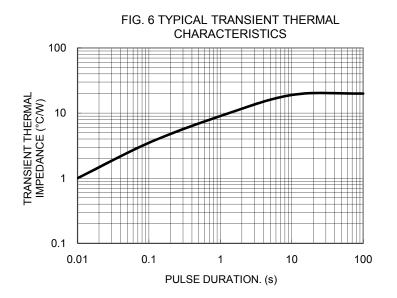
140





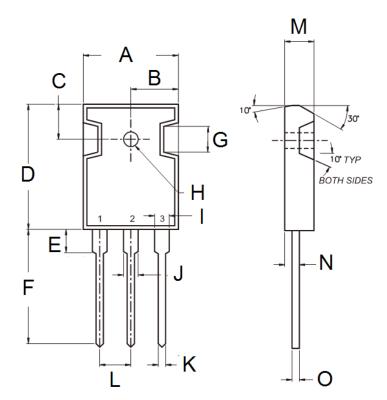
FIG. 5 TYPICAL JUNCTION CAPACITANCE





PACKAGE OUTLINE DIMENSIONS

TO-247AD (TO-3P)



| DIM. | Unit | (mm) | Unit (inch) | | |
|--------|---------|-------|-------------|-------|--|
| DIIVI. | Min Max | | Min | Max | |
| Α | 15.90 | 16.40 | 0.626 | 0.646 | |
| В | 7.90 | 8.20 | 0.311 | 0.323 | |
| С | 5.70 | 6.20 | 0.224 | 0.244 | |
| D | 20.80 | 21.30 | 0.819 | 0.839 | |
| Е | 3.50 | 4.10 | 0.138 | 0.161 | |
| F | 19.70 | 20.20 | 0.776 | 0.795 | |
| G | - | 4.30 | - | 0.169 | |
| Н | 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 | |
| М | 4.90 | 5.16 | 0.193 | 0.203 | |
| N | 2.70 | 3.00 | 0.106 | 0.118 | |
| 0 | 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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