

TECHNICAL DATA  
DATA SHEET 4647, REV. A**HERMETIC SCHOTTKY RECTIFIER**  
**Low Forward Voltage Drop****Features:**

- Soft Reverse Recovery at Low and High Temperature
- Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Capacity
- Guard Ring for Enhanced Durability and Long Term Reliability
- Guaranteed Reverse Avalanche Characteristics

**Maximum Ratings**

| Characteristics                                  | Symbol          | Condition   | Max.         | Units              |
|--|-----------------|---|--------------|--------------------|
| Peak Inverse Voltage                             | $V_{RWM}$       | -   | 200          | V                  |
| Max. Average Forward Current                     | $I_{F(AV)}$     | 50% duty cycle, rectangular wave form (Single)  | 3.0          | A                  |
| Max. Average Forward Current                     | $I_{F(AV)}$     | 50% duty cycle, rectangular wave form (Common Cathode)  | 6            | A                  |
| Max. Peak One Cycle Non-Repetitive Surge Current | $I_{FSM}$       | 8.3 ms, half Sine wave (per leg)  | 55           | A                  |
| Non-Repetitive Avalanche Energy                  | $E_{AS}$        | $T_J = 25\text{ }^\circ\text{C}$ , $I_{AS} = 3.0\text{ A}$ ,<br>$L = 4.4\text{ mH}$ (per leg)   | 20           | mJ                 |
| Repetitive Avalanche Current                     | $I_{AR}$        | $I_{AS}$ decay linearly to 0 in $1\text{ }\mu\text{s}$<br>$f$ limited by $T_J$ max $V_A=1.5V_R$ | 3.0          | A                  |
| Maximum Thermal Resistance                       | $R_{\theta JC}$ | (Single)<br>(Common Cathode)  | 2.97<br>5.95 | $^\circ\text{C/W}$ |
| Max. Junction Temperature                        | $T_J$           | -   | -65 to +200  | $^\circ\text{C}$   |
| Max. Storage Temperature                         | $T_{stg}$       | -   | -65 to +200  | $^\circ\text{C}$   |

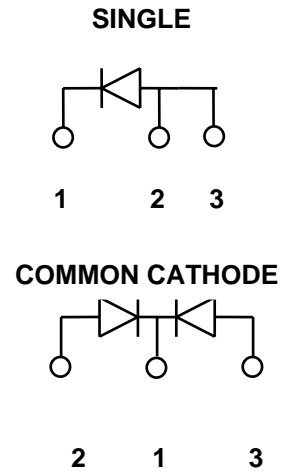
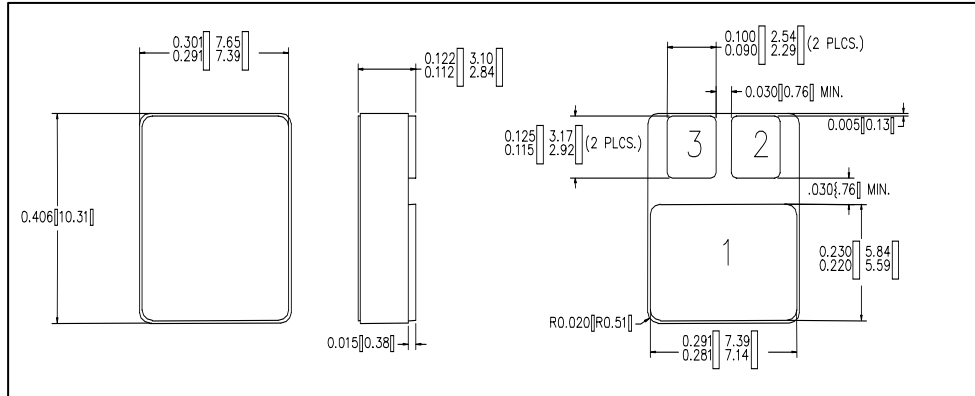
**Electrical Characteristics**

| Characteristics                     | Symbol   | Condition  | Max.  | Units |
|-------------------------------------|----------|--|-------|-------|
| Max. Forward Voltage Drop (per leg) | $V_{F1}$ | @ 3.0A, Pulse, $T_J = 25\text{ }^\circ\text{C}$  | 0.97  | V     |
|                                     | $V_{F2}$ | @ 3.0A, Pulse, $T_J = 125\text{ }^\circ\text{C}$   | 0.81  | V     |
| Max. Reverse Current (per leg)      | $I_{R1}$ | @ $V_R = 200\text{V}$ , Pulse,<br>$T_J = 25\text{ }^\circ\text{C}$   | 0.025 | mA    |
|                                     | $I_{R2}$ | @ $V_R = 200\text{V}$ , Pulse,<br>$T_J = 125\text{ }^\circ\text{C}$  | 0.2   | mA    |
| Max. Junction Capacitance (per leg) | $C_T$    | @ $V_R = 5\text{V}$ , $T_C = 25\text{ }^\circ\text{C}$<br>$f_{SIG} = 1\text{MHz}$ ,<br>$V_{SIG} = 50\text{mV}$ (p-p) | 60    | pF    |

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**Mechanical Dimensions: in Inches / mm**

**LCC-5**

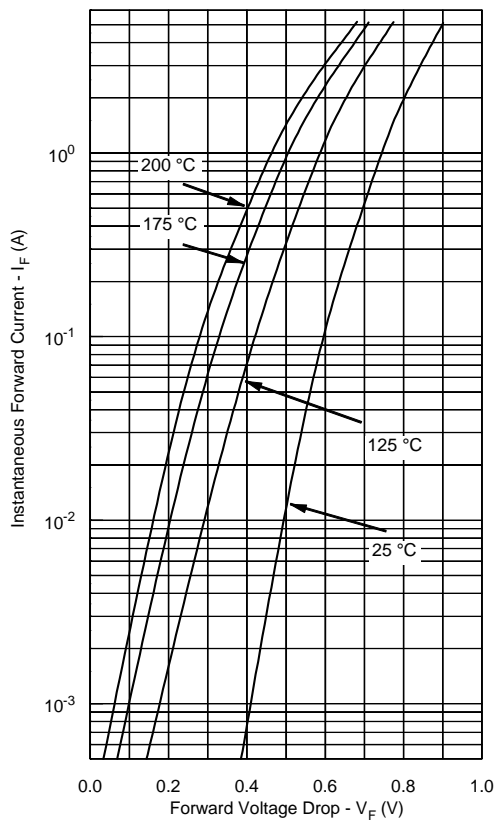


**PINOUT TABLE**

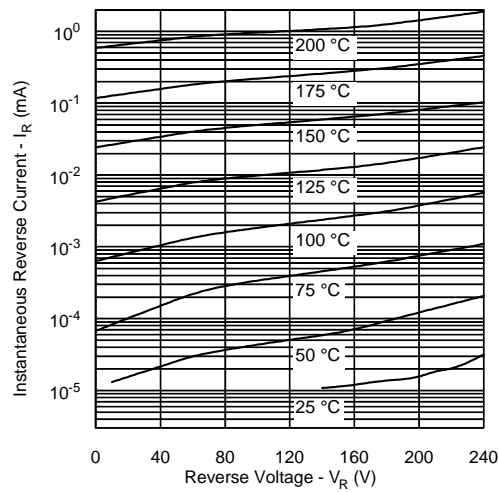
| DEVICE TYPE        | PIN 1          | PIN 2   | PIN 3   |
|--------------------|----------------|---------|---------|
| SINGLE RECTIFIER   | CATHODE        | ANODE   | ANODE   |
| COMMON CATHODE - P | COMMON CATHODE | ANODE 1 | ANODE 2 |

**Note:** The  $V_f$  curves shown are for the SD60SCU200 unpackaged die only.

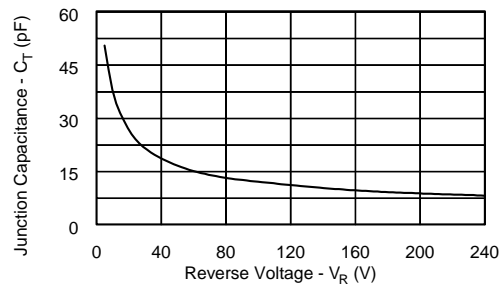
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**



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