

**TECHNICAL DATA**  
**DATA SHEET 779, REV. B****HERMETIC POWER SCHOTTKY RECTIFIER**  
**Ultra Low Reverse Leakage**  
**200°C Operating Temperature****Applications:**

- Switching Power Supply • Converters • Free-Wheeling Diodes • Polarity Protection Diode

**Features:**

- Ultra low Reverse Leakage Current
- Soft Reverse Recovery at Low and High Temperature
- Very 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
- Out Performs 100 Volt Ultrafast Rectifiers

**Maximum Ratings:**

| Characteristics                                  | Symbol          | Condition                                              | Max.        | Units |
|--------------------------------------------------|-----------------|--------------------------------------------------------|-------------|-------|
| Peak Inverse Voltage                             | $V_{RWM}$       | -                                                      | 100         | V     |
| Max. Average Forward Current                     | $I_{F(AV)}$     | 50% duty cycle, rectangular wave form (Single)         | 15          | A     |
| Max. Average Forward Current                     | $I_{F(AV)}$     | 50% duty cycle, rectangular wave form (Common Cathode) | 30          | A     |
| Max. Peak One Cycle Non-Repetitive Surge Current | $I_{FSM}$       | 8.3 ms, half Sine wave (per leg)                       | 200         | A     |
| Max. Thermal Resistance                          | $R_{\theta JC}$ | (Single)                                               | 2.65        | °C/W  |
| Max. Junction Temperature                        | $T_J$           | -                                                      | -65 to +200 | °C    |
| Max. Storage Temperature                         | $T_{stg}$       | -                                                      | -65 to +175 | °C    |

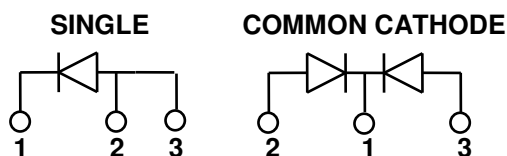
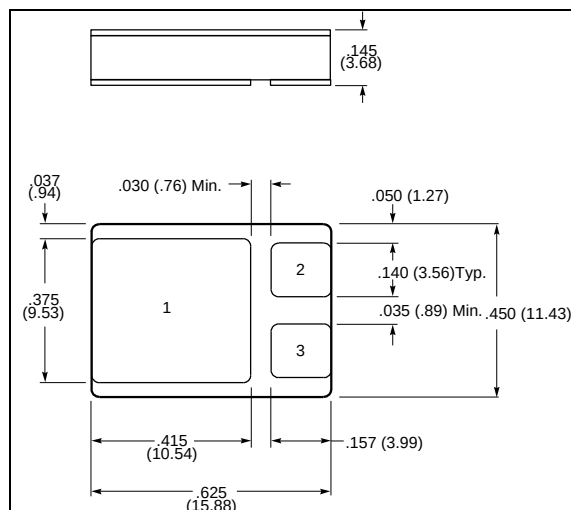
**Electrical Characteristics:**

| Characteristics           | Symbol   | Condition                                                                                                              | Max. | Units |
|---------------------------|----------|------------------------------------------------------------------------------------------------------------------------|------|-------|
| Max. Forward Voltage Drop | $V_{F1}$ | @ 15A, Pulse, $T_J = 25^\circ\text{C}$ (per leg)                                                                       | 0.93 | V     |
|                           | $V_{F2}$ | @ 15A, Pulse, $T_J = 125^\circ\text{C}$ (per leg)                                                                      | 0.77 | V     |
| Max. Reverse Current      | $I_{R1}$ | @ $V_R = 100\text{V}$ , Pulse, $T_J = 25^\circ\text{C}$ (per leg)                                                      | .1   | mA    |
|                           | $I_{R2}$ | @ $V_R = 100\text{V}$ , Pulse, $T_J = 125^\circ\text{C}$ (per leg)                                                     | 1.0  | mA    |
| Max. Junction Capacitance | $C_T$    | @ $V_R = 5\text{V}$ , $T_C = 25^\circ\text{C}$<br>$f_{SIG} = 1\text{MHz}$ ,<br>$V_{SIG} = 50\text{mV}$ (p-p) (per leg) | 500  | pF    |

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MECHANICAL DIMENSIONS: IN Inches / mm



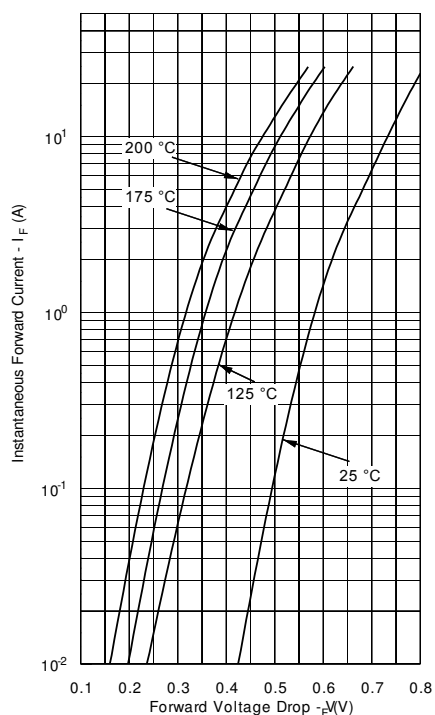
**LCC-3P**

PINOUT TABLE

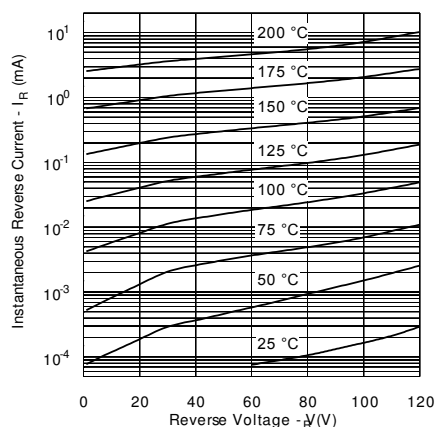
| DEVICE TYPE      | PIN 1          | PIN 2   | PIN 3   |
|------------------|----------------|---------|---------|
| SINGLE RECTIFIER | CATHODE        | ANODE   | ANODE   |
| COMMON CATHODE   | COMMON CATHODE | ANODE 1 | ANODE 2 |

**Note:** The  $V_f$  curves shown are for the SD125SCU100 unpackaged die only.

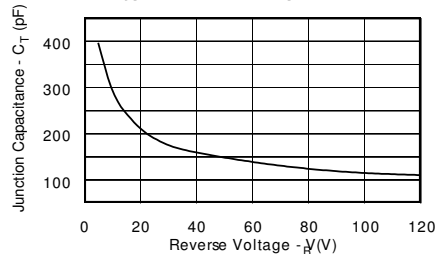
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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