Cree announces the world’s first commercially available 1700 V Silicon Carbide Schottky Diodes.

**FEATURES**

- **Zero Reverse Recovery**
  - Virtually eliminate diode switching losses
  - Significantly reduce IGBT turn ON losses
  - Greatly reduce overall system losses
  - Much Improved EMI
  - Significantly reduce cooling requirements and improve reliability

- **Positive Temperature Co-efficient**
  - Easily paralleled
  - Enables significant benefits for higher power applications

- **Higher potential switching speed**
  - Reduce magnetic & filter volume/weight by 40% to 50% by increasing system $F_{SW}$

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**Graphs**

**1700V 16A Si PiN**
- 85A for 360ns, Recovery

**1700V 10A SiC Schottky**
- 4A for 40ns, Capacitive

**Silicon**
- 20.0 A
- 200ns
- 2.50GS/s
- 10k points
- 667mV
- 10.00 %

**Silicon Carbide**
- 20.0 A
- 200ns
- 2.50GS/s
- 10k points
- 667mV
- 10.00 %

99% REDUCTION
### Key Specifications:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>$I_f$ (A)</th>
<th>$V_f$ (V) TYPICAL</th>
<th>$I_p$ (μA) TYPICAL</th>
<th>$Q_p$ (nC) TYPICAL</th>
<th>$T_J$ (°C) MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPW3-1700S010B</td>
<td>10</td>
<td>1.8 @ 25°C</td>
<td>10 @ 25°C</td>
<td>80</td>
<td>175</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.2 @ 175°C</td>
<td>20 @ 175°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPW3-1700S025B</td>
<td>25</td>
<td>1.8 @ 25°C</td>
<td>25 @ 25°C</td>
<td>210</td>
<td>175</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.2 @ 175°C</td>
<td>50 @ 175°C</td>
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</tr>
</tbody>
</table>

1700 V 25A SiC Schottky $V_f$ vs. $I_f$

1700 V 10 A & 25 A products are currently available in chip form

To purchase samples, please visit: www.cree.com/1700V

For more information, please visit: www.cree.com/products/power or contact power_sales@cree.com

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