HIGH-VOLTAGE POWER MOSFETs
SiHG22N60S, SiHP22N60S, SiHB22N60S, SiHF22N60S

New 600-V MOSFETs with Super Junction Technology
Super Junction Technology in TO-220, TO-247, TO-220F, and TO-263 Packages

KEY BENEFITS
• Dramatic reduction of maximum $R_{DS(on)}$ at $V_{GS} = 10$ V: 0.190 $\Omega$
• Ultra-low gate charge: $Q_g = 98$ nC
• Increased efficiency for SMPS
• High $E_A$ capability
• Low figure-of-merit (FOM) $R_{on} \times Q_g$
• 100% avalanche tested
• High peak current capability
• $dV/dt$ ruggedness
• Effective $C_{DSS}$ specified
• Improved transconductance
• High power dissipation capability

APPLICATIONS
• Power factor correction (PFC) and pulse width modulation (PWM) in a wide range of electronics including:
  ° LCD TVs
  ° PCs
  ° Servers
  ° Switchmode power supplies (SMPS)
  ° Telecom systems

Datasheets are available on our website at www.vishay.com
## FEATURES
- High E_Ar Capability
- Lower Figure-of-Merit R_PSD x Qgs
- 100% Avalanche Tested
- High Peak Current Capability
- dV/dt ruggedness
- Effective Coss specified
- Improved Transconductance
- Improved UQg
- Improved Gate Charge
- High Power Dissipation Capability
- Compliant to RoHS Directive 2002/95/EC

## ORDERING INFORMATION
- **SiHF22N60S**
  - Package: TO-220
  - Lead (Pb)-free: SHP22N60S-E3

- **SiHF22N60S-E3**
  - Package: TO-263
  - Lead (Pb)-free: SIHB22N60S-E3

**Power MOSFETs**

### ABSOLUTE MAXIMUM RATINGS
- T_C = 25 °C, unless otherwise noted

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>SYMBOL</th>
<th>LIMIT</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drain-Source Voltage</td>
<td>V_DS</td>
<td>650</td>
<td>V</td>
</tr>
<tr>
<td>Gate-Source Voltage</td>
<td>V_GS</td>
<td>10</td>
<td>V</td>
</tr>
<tr>
<td>Continuous Drain Current</td>
<td>I_DS</td>
<td>122</td>
<td>A</td>
</tr>
<tr>
<td>Pulsed Drain Current</td>
<td>I_Dm</td>
<td>25</td>
<td>A</td>
</tr>
<tr>
<td>Linear Derating Factor</td>
<td>T_A</td>
<td>2</td>
<td>W/°C</td>
</tr>
<tr>
<td>Single Pulse Avalanche Energy</td>
<td>E_P</td>
<td>0.5</td>
<td>J</td>
</tr>
<tr>
<td>Repetitive Avalanche Energy</td>
<td>E_AR</td>
<td>25</td>
<td>J</td>
</tr>
<tr>
<td>Maximum Power Dissipation</td>
<td>P_D</td>
<td>25</td>
<td>W</td>
</tr>
<tr>
<td>Peak Diode Recovery dv/dt</td>
<td>dV/dt</td>
<td>7.3</td>
<td>V/ns</td>
</tr>
<tr>
<td>Operating Junction and Soldering Temperature Range</td>
<td>T_J, Tstg</td>
<td>-55 to +150</td>
<td>°C</td>
</tr>
<tr>
<td>Soldering Recommendations (Peak Temperature)</td>
<td>for 10 s</td>
<td>300</td>
<td>°C</td>
</tr>
</tbody>
</table>

**Notes**
- a. Limited by maximum junction temperature.
- b. Repetitive rating; pulse width limited by maximum junction temperature.
- c. V_DS = 50 V, starting T_J = 25 °C, I_D = 10 A.
- d. V_GS max. = 10 V.
- e. 1.6 mm from case.

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