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Vishay Intertechnology, Inc.

# Consumer

(Electric Two-Wheel Transportation)



One of the World's Largest Manufacturers of  
**Discrete Semiconductors and Passive Components**





**Consumer**

Electric Two-Wheel  
Transportation

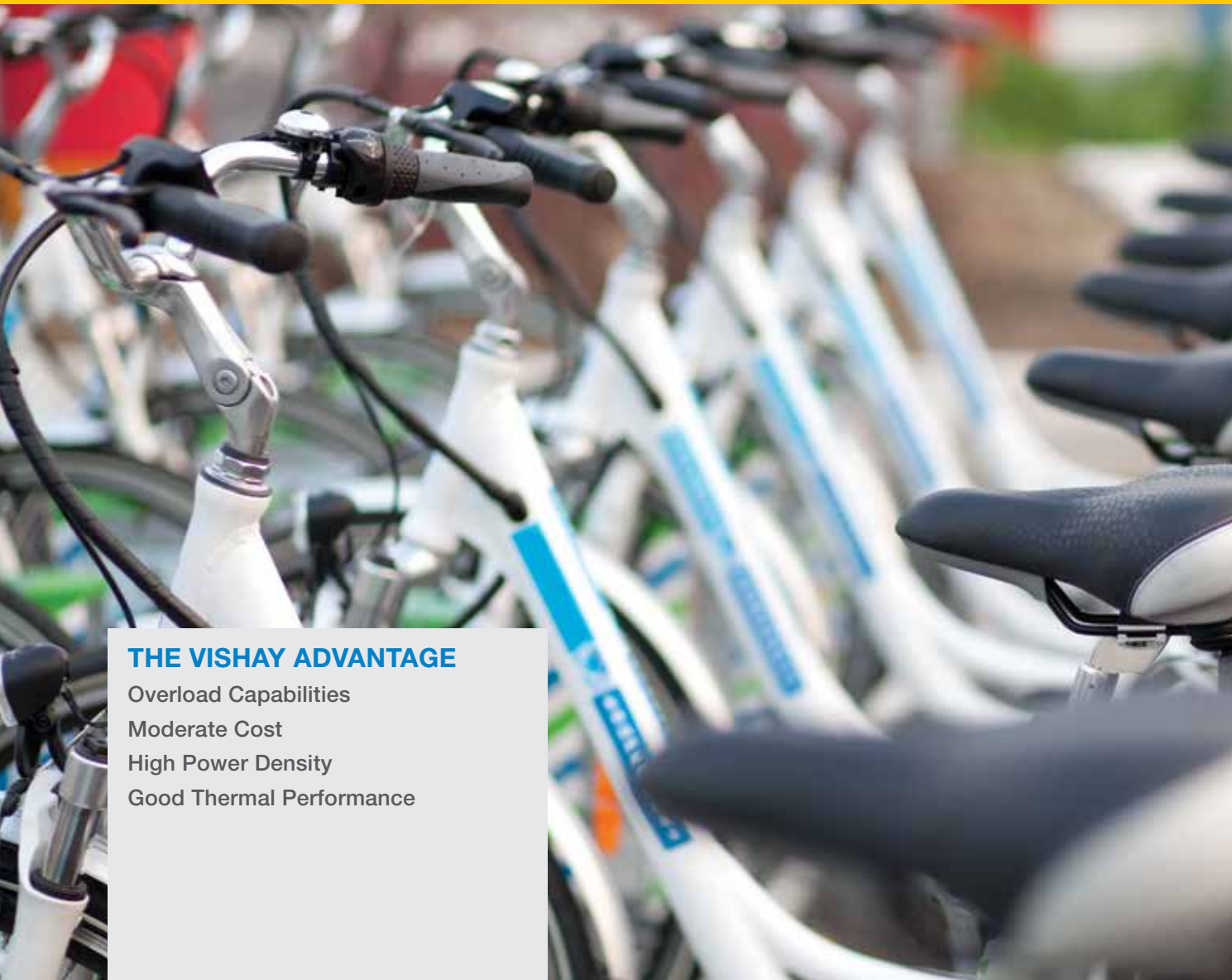
E-Bikes / E-Scooters

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More information on the Engineer's Toolbox, including product datasheet links, can be found at [www.vishay.com/ref/et3](http://www.vishay.com/ref/et3).

For inquiries, please contact your local sales representative.

*Key components for*  
**ELECTRIC TWO-WHEEL TRANSPORTATION**



**E-Bikes /  
E-Scooters**



**THE VISHAY ADVANTAGE**

- Overload Capabilities
- Moderate Cost
- High Power Density
- Good Thermal Performance

# E-Bikes / E-Scooters


**MOSFETs**

**N-Channel 100 V (D-S)  
175 °C MOSFET**

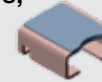


[SUM110N10-09](#)

- Classic TrenchFET® technology, maximum  $R_{DS(on)}$  9.5 mΩ
- Popular D<sup>2</sup>PAK packaging

**RESISTORS**

**Power Metal Strip® Resistors,  
Very High Power (to 7 W)**



[WSLP2726](#)

- High power rating of 5 W to 7 W in WSLP2726 package
- Very low resistance values, 0.0005 Ω to 0.002 Ω, in 4-terminal package

**CERAMIC CAPACITORS**

**IEC 60384-14:2005,  
CAN/CSA/cCSAus, and  
ANSI/UL CB Certificates**



[MLCC SMD Safety Capacitor](#)

- Surface-mount design: simpler assembly and reduced board space requirement
- Available in NP0 (C0G) or X7R dielectrics

**OPTOELECTRONICS**

**Fully Integrated Proximity and  
Ambient Light Sensor with  
I<sup>2</sup>C Interface**



[VCNL4020-GS08](#)

- Infrared emitter is included in the 4.9 mm x 2.4 mm x 0.83 mm SMD pkg.
- 16-bit resolution, proximity range of up to 20 cm with programmable thresholds

**INDUCTORS**

**Low-Profile, High-Current  
IHLP® Inductors**



[IHLP-6767GZ-5A](#)

- Automotive Grade, high-current power inductor for DC/DC conversion
- High-temperature continuous operation up to 155 °C

**RESISTORS**

**Low Value (Down to 0.0005 Ω),  
Surface-Mount**



[WSHM2818](#)

- Very high power rating of 7 W in small 2818 package
- Very low resistance values, 0.001 Ω to 0.10 Ω, with tolerance of 1 %

**NON-LINEAR RESISTORS**

**NTC Thermistors, 2-Point Micro  
Chip Sensor Insulated Leads**

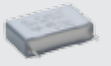


[NTCLE306E3....](#)

- Miniature insulated leads
- AEC-Q200 compliant, fast response time for exposed mounting

**FILM CAPACITORS**

**Interference Suppression Film  
Capacitor – Class Y2, Radial  
MKP 300 V<sub>AC</sub> – Line to  
Ground Application**



[MKP338 6](#)

- AEC-Q200 qualified
- Robust design





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## ***ABOUT TTI, INC.***

TTI Inc., a subsidiary of Berkshire Hathaway, is a world leading specialist distributor of connectors and passive, electromechanical and discrete components. TTI's philosophy is "Lead by Design", and the company differentiates itself by focusing on people, parts and processes. The company's aim is to become the distributor of choice for customers and suppliers in Europe alike by introducing new product technologies and by stocking broad and deep across its franchise base. TTI employs sophisticated inventory management processes which ensure that the company can react immediately to changes in component demand due to fluctuating markets and supply chains. For further information about TTI, please refer to: [www.ttieurope.com](http://www.ttieurope.com).



**A WORLD OF**  
**SOLUTIONS**

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