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Vishay Intertechnology, Inc.

# *Industrial*

*(Surveillance Systems)*



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





**Industrial**

## Surveillance Systems

Cameras / CCTV	2
Access Control Systems / Door and Gate Opener	3
Biometrics	4
RFID	5

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 SURVEILLANCE SYSTEMS



## THE VISHAY ADVANTAGE

- Long Life
- High Reliability
- Safety Approvals
- High Power Density
- Ruggedized Construction

### Cameras / CCTV



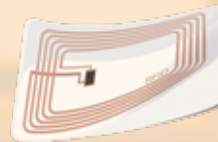
### Access Control Systems / Door and Gate Openers



### Biometrics



### RFID



## Cameras / CCTV



<p>NON-LINEAR RESISTORS</p> <p><b>SMD 0402, Glass Protected NTC Thermistors</b></p>  <p><a href="#">NTCS0402</a></p> <ul style="list-style-type: none"> <li>• Standard series, AEC-Q200 compliant</li> <li>• Glass protected with soft terminations</li> </ul>	<p>OPTOELECTRONICS</p> <p><b>High-Power SurfLight™ Emitter with 850 nm Peak Wavelength</b></p>  <p><a href="#">VSMY7850X01</a></p> <ul style="list-style-type: none"> <li>• Wavelength matches CMOS-based camera systems for vision systems</li> <li>• 170 mW/sr intensity at 1 A forward current, 780 mW/sr at 5 A forward current</li> </ul>	<p>FILM CAPACITORS</p> <p><b>DC Film Capacitors, MKT Axial Type</b></p>  <p><a href="#">MKT1813</a></p> <ul style="list-style-type: none"> <li>• General purpose MKT film capacitor</li> <li>• Axial construction for low building height applications</li> </ul>
<p>INDUCTORS</p> <p><b>Low-Profile, High-Current Inductors</b></p>  <p><a href="#">IFSC111AZER3RM01</a></p> <ul style="list-style-type: none"> <li>• Very small power inductor for low current DC/DC conversion and filtering</li> </ul>	<p>DIODES</p> <p><b>Small-Signal Zener Diodes</b></p>  <p><a href="#">BZX84C18-E3-08</a></p> <ul style="list-style-type: none"> <li>• AEC-Q101 qualified</li> <li>• Silicon planar Zener diodes</li> </ul>	<p>NON-LINEAR RESISTORS</p> <p><b>SMD 0603, Glass Protected NTC Thermistors</b></p>  <p><a href="#">NTCS0603</a></p> <ul style="list-style-type: none"> <li>• Standard series, AEC-Q200 compliant</li> <li>• Glass protected with soft terminations</li> </ul>
<p>MOSFETs</p> <p><b>Dual P-Channel 40 V (D-S) MOSFET</b></p>  <p><a href="#">Si7905DN</a></p> <ul style="list-style-type: none"> <li>• TrenchFET® technology providing two p-channel devices with maximum <math>R_{DS(on)}</math> of 60 mΩ</li> <li>• Thermally enhanced PowerPAK® 1212-8 is 1/3 the size of an SO-8</li> </ul>	<p>TANTALUM CAPACITORS</p> <p><b>Solid Tantalum Surface-Mount Chip Capacitors, TANTAMOUNT®, Molded Case</b></p>  <p><a href="#">293D</a></p> <ul style="list-style-type: none"> <li>• Molded tantalum capacitor, standard industrial grade</li> <li>• General purpose capacitor</li> </ul>	<p>OPTOELECTRONICS</p> <p><b>High-Power SurfLight™ Emitter with 850 nm Peak Wavelength</b></p>  <p><a href="#">VSMY98545</a></p> <ul style="list-style-type: none"> <li>• Radiant intensity of 350 mW/sr at 1 A and 1600 mW/sr at 5 A pulsed</li> <li>• Radiant power of 660 mW in a 3.85 mm x 3.85 mm x 2.24 mm package</li> </ul>
<p>RECTIFIERS</p> <p><b>Surface-Mount Schottky Barrier Rectifiers</b></p>  <p><a href="#">MSS1P4</a></p> <ul style="list-style-type: none"> <li>• AEC-Q101 qualified</li> <li>• Very low profile – typical height of 0.65 mm</li> </ul>	<p>OPTOELECTRONICS</p> <p><b>Optocoupler with Phototransistor Output and Trigger Current of <math>I_F = 1</math> mA</b></p>  <p><a href="#">VOS618A</a></p> <ul style="list-style-type: none"> <li>• High current transfer ratio, and high isolation voltage of 3750 V<sub>RMS</sub></li> <li>• Operating temp. from -55 °C to +110 °C in SSOP-4, half pitch, mini-flat package</li> </ul>	<p>DISPLAYS</p> <p><b>High-Quality Displays Offer Excellent Human-to-Machine Interface Solutions</b></p>  <p><a href="#">LCD, Color TFT, OLED</a></p> <ul style="list-style-type: none"> <li>• Standard or customized glass / modules for specific applications and monitoring</li> <li>• Color TFT for clarity</li> </ul>

View datasheets for these products  
[www.vishay.com/ref/et3in4a](http://www.vishay.com/ref/et3in4a)

## Access Control Systems / Door and Gate Openers



OPTOELECTRONICS

**Fixed Gain IR Receiver for Light Barriers up to 30 Meters**



[TSSP4038](#)

- Detection level does not change when ambient light or strong IR noise is applied
- Internal filter for 38 kHz IR signals with integrated signal processing

CERAMIC CAPACITORS

**Body Sizes: 0402 to 3838, Excellent Power Handling Capabilities**



[MLCC RF Capacitors](#)

- Non-magnetic available with copper or epoxy bondable termination
- Lead-bearing termination available for hi-rel applications

OPTOELECTRONICS

**Optocoupler with Low Input Current and Phototransistor Output in an SOP-4 Package**



[VOM618A](#)

- High current transfer ratio, and high isolation voltage of 3750 V<sub>RMS</sub>
- Operating temperature from -55 °C to +110 °C in a SOP-4 package

ENERGY STORAGE CAPACITORS

**Hybrid Storage Capacitors**



[196 HVC ENYCAP™](#)

- Polarized electrochemical storage capacitor with high capacity and energy density
- No cell balancing necessary, soft and low transient voltage controlled charging

TANTALUM CAPACITORS

**vPolyTan™ Solid Tantalum Surface-Mount Chip Capacitors, Molded Case, High-Performance Polymer Type**



[T55 Series](#)

- Ultra-low ESR, molded case available in 5 case codes
- Moisture sensitivity level 3

DISPLAYS

**High-Quality Displays Offer Excellent Human-to-Machine Interface Solutions**



[LCD, Color TFT, OLED](#)

- Standard or customized glass / modules for specific applications and monitoring
- Can withstand extensive temperatures and extreme conditions

## Biometrics

### CERAMIC CAPACITORS

**Ultra-Stable Dielectric Formulation, Low Dissipation Factor (DF)**



[MLCC High Q Capacitors](#)

- Robust design build with wet process and noble metal electrodes

### ICs

**1.0 A Slew Rate Controlled Load Switch with Reverse Blocking in SC70-6, and TDFN4**



[SiP32431](#)

- Industry's lowest operating current (only 50 pA)
- Ideal for battery operated equipment

### INDUCTORS

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



[IHLP-2020CZER4R7M01](#)

- Compact composite inductor for high-efficiency DC/DC conversion
- High frequency operation out to 5 MHz, excellent saturation

### OPTOELECTRONICS

**High-Power SurfLight™ Emitter with 850 nm Peak Wavelength**



[VSMY98545](#)

- Radiant intensity of 350 mW/sr at 1 A and 1600 mW/sr at 5 A pulsed
- Radiant power of 660 mW in a 3.85 mm x 3.85 mm x 2.24 mm package

### OPTOELECTRONICS

**Infrared Transceiver with Data Rate up to 115.2 kbit/s**



[TFBS4711](#)

- Small package (H x L x W): 1.9 mm x 3 mm x 6 mm and transmit range of 1 meter
- Idle current: 70  $\mu$ A, shutdown current: 10 nA, operates from 2.4 V to 5.5 V

### OPTOELECTRONICS

**High-Power SurfLight™ Emitter with 850 nm Peak Wavelength**



[VSMY7850X01](#)

- Wavelength matches CMOS-based camera systems for vision systems
- 170 mW/sr intensity at 1 A forward current, 780 mW/sr at 5 A forward current

**RFID**


## MOSFETs

**P-Channel 20 V (D-S) MOSFET**

[SiS407ADN](#)

- Industry leading p-channel Gen III technology, maximum  $R_{DS(on)}$  9 m $\Omega$
- Thermally enhanced PowerPAK® 1212-8 is 1/3 the size of an SO-8

## INDUCTORS

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

[IHLP-2020ABER2R2M01](#)

- Compact composite inductor for high-efficiency DC/DC conversion
- High frequency operation out to 5 MHz, excellent saturation

## OPTOELECTRONICS

**High Radiant Power and High-Speed 890 nm Infrared Emitter**

[VSMF2890RGX01](#)

- Radiant intensity up to 350 mW/sr with  $I_F$  up to 1 A, 30 ns rise and fall time
- Angle of half intensity:  $\phi = \pm 12^\circ$  in gullwing or reverse gullwing package

## CERAMIC CAPACITORS

**Standard Reflow Process Assembly, High-Reliability Ceramic-Oxide Body Construction**

[VJ5601M868MXBSR](#)

- Frequency angle from 400 MHz to 5 GHz
- Wide operating temperature range: -40 °C to +85 °C

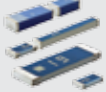
## OPTOELECTRONICS

**High Radiant Power and High-Speed 850 nm Infrared Emitter**

[VSMG3700GS08](#)

- Radiant intensity up to 100 mW/sr with  $I_F$  up to 1 A, 20 ns rise time, 13 ns fall time
- Angle of half intensity:  $\phi = \pm 60^\circ$  in PLCC2 package

## CERAMIC CAPACITORS

**Standard Reflow Process Assembly, High-Reliability Ceramic-Oxide Body Construction**

[Ceramic Chip Antenna](#)

- Frequency range from 400 MHz to 5 GHz
- Wide operating temperature range: -40 °C to +85 °C

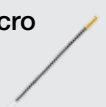
## ENERGY STORAGE CAPACITORS

**Hybrid Storage Capacitors**

[196 HVC ENYCAP™](#)

- Power back up for memory controller, industrial PC, real time clock
- Storage device for energy harvesting, emergency light and micro power supplies

## NON-LINEAR RESISTORS

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

[NTCLE305E4...](#)

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



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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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