







# Consumer (Gaming)











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

For inquiries, please contact your local sales representative.





# Key components for

# **GAMING**







# Game Consoles



#### OPTOFI FCTRONICS

# IR Receiver Modules for Remote Control Systems

## **TSOP58...**

- Industry leading range of 45 m, directivity of ± 45° in a thru-hole package
- Minimum irradiance of 0.12 mW/m², and featuring AGC-3 or AGC-4 noise suppression

#### TANTALUM CAPACITORS

# Solid Tantalum Chip Capacitors 298D Microtan®, 298W Extended Range Microtan

## 298D

- High capacitance in small case sizes including 0603 and 0402 footprint
- Perfect for space constrained designs

#### RESISTORS

# Power Metal Strip® Resistors, Low Value (Down to 0.0005 $\Omega$ ), Surface-Mount

### WSLx

- Extremely low resistance values from 0.0005  $\Omega$  to 0.5  $\Omega$  and tolerance of 1 %
- Power Metal Strip all-welded construction offers high pulse capacity

#### **RECTIFIERS**

# Dual Trench MOS Barrier Schottky Rectifier

#### VT2080C

- Trench MOS Schottky technology
- Low forward voltage drop, low power losses

#### ICs

# 50 A, 5 V / 3.3 V PWM Integrated DrMOS Power Stage

## SiC780

- Intel DrMOS 4.0 compliant
- MLP6x6-40L, 5 V / 3.3 V PWM Tri-state, THWN, DSBL#, SMOD

#### **INDUCTORS**

# Low-Profile, High-Current IHLP® Inductors

## **IHLP**

- Compact, high-current power inductor for DC/DC conversion and filter applications
- High-frequency operation up to 5 MHz

#### **DIODES**

# Surface-Mount TransZorB® Transient Voltage Suppressors

#### **SMCJxx**

- AEC-Q101 qualified
- Available in unidirectional and bidirectional

#### **RESISTORS**

# Professional Thin Film Chip Resistors

#### MCS0402...e3

- Excellent stability class 0.5, cost efficient
- CECC approved acc. EN 140401-801, sulfur resistant

#### MOSFETs

# N-Channel 30 V (D-S) MOSFET

#### SiSA18ADN

- TrenchFET® Gen IV technology for increased power density, maximum  $R_{DS(\alpha)}$  7.5 m $\Omega$
- Thermally enhanced PowerPAK® 1212-8 is 1/3 the size of an SO-8

#### lCs

# 60 A VRPower® Integrated Power Stage Offers Highest Power Density and Efficiency

#### SiC620

- 3 % better efficiency with 50 °C cooler operation in a 30 % smaller footprint
- MLP5x5-31L, 5 V / 3.3 V PWM Tri-state, THWN, DSBL#, SMOD

#### **OPTOELECTRONICS**

# High Luminous Intensity LEDs in 0603 ChipLED Package

#### VLMx1300

- Available in blue, true green, yellow green, yellow, soft orange, super red, and white
- Angle of half intensity: ± 65°,
   1.6 mm x 0.8 mm x 0.8 mm (L x W x H)

#### **DIODES**

# 4-Line Bus-Port ESD Protection, Flow Through Design

## VBUS54ED-FBL

- Very low profile typical height of 0.65 mm
- Soldering can be checked by standard vision inspection





# Portable Gaming Consoles



#### **INDUCTORS**

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



# MOSFFTs

# Dual N-Channel 30 V (D-S) MOSFETs



# **Chip Resistors** MCS0402...e3

**RESISTORS** 

• Excellent stability class 0.5, cost efficient

Professional Thin Film

 CECC approved acc. EN 140401-801, sulfur-resistant

#### IHLP-1616ABER1R0M01

- High-current, very low profile power inductor for DC/DC conversion and filterina
- High-frequency operation up to 5 MHz

#### **RESISTORS**

SiZ340DT

 $R_{DS(on)}$  5.1 m $\Omega$ 

# Thick Film Surface-Mount Chip Resistors, Wraparound, **Extremely Low Value**

• TrenchFET® Gen IV technology for

increased power density, maximum

PowerPAIR® package optimizes high and

low side MOSFETs to increase efficiency



# OPTOFI FCTRONICS

# **High-Speed Infrared Emitting** Diodes, 890 nm, GaAlAs, DH

# VSMF2890GX01

- 890 nm emitting diode in GaAlAs technology with high radiant power of 40 mW,  $I_r$ = 100 mA
- 2.3 mm x 2.3 mm x 2.8 mm gullwing SMD pkg.,  $\pm$  12° angle of half intensity

## **V8PM12**

RECTIFIERS

Trench MOS Schottky technology

Surface-Mount Trench MOS

**Barrier Schottky Rectifier** 

AEC-Q101 qualified

**High Current Density** 

# **RCWE**

- Low resistance values from 0.01 Ω to  $0.99~\Omega$  and tolerance of 1 %
- Thick film construction with 2x power capacity

#### DIODES

## 4-Line Bus-Port ESD Protection, Flow Through Design

## VBUS54ED-FBL

- Compact LLP2510-10L package
- Soldering can be checked by standard vision inspection

## 20 mΩ, Slew Rate Controlled Load Switch in WCSP6



#### SiP32458

- Low and flat R<sub>ON</sub> over the full operation voltage range
- Features low I<sub>o</sub>, reverse blocking with quaranteed less than 10 µA leakage

# OPTOFI FCTRONICS

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

## VCNL4020

- 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

#### TANTALUM CAPACITORS

# vPolyTan™ Polymar **Tantalum Capacitors**

### T55

- High-capacitance, low-ESR polymer tantalum capacitors
- Stable electrical performance over temperature and voltage

#### **ENERGY STORAGE CAPACITORS**

# **Hybrid Storage** Capacitors



# 196 HVC ENYCAP™

- Extreme small profile with high energy density
- Instant rechargable, suitable for solar power charging

#### **OPTOELECTRONICS**

# IR Receiver Modules for Remote Control Systems



### TSOP6236TR

- Low supply current, photo detector and preamplifier in one package
- Supply voltage: 2.5 V to 5.5 V, improved immunity against ambient light









# Accessories / Controllers / Steering Wheels



ICs

Low-Voltage Dual SPDT Analog Switch with Negative Swing Audio Capability

#### DG2750

- Supports negative swing signal down to -2 V
- 0.6 Ω low switch on resistance, and 4 pC low charge injection

## NON-LINEAR RESISTORS

SMD 0603, Glass Protected NTC Thermistors

### NTCS0603xx

- Standard series, AEC-Q200 compliant
- Glass protected with soft terminations

#### DIODES

Low-Capacitance Bidirectional Symmetrical (BiSy) Single Line ESD-Protection Diode

### VBUS05A1-SD0

- Ultra compact CLP0603 package
- Low package height < 0.3 mm

#### TANTALUM CAPACITORS

Solid Tantalum Surface-Mount Chip Capacitors, Tantamount®, Standard Industrial Grade

#### 293D

- Molded tantalum capacitor, standard industrial grade
- General purpose capacitor

#### **MOSFETs**

P-Channel 20 V (D-S) MOSFET

## Si2367DS

- Classic TrenchFET® technology with on-resistance rating down to 1.8 V
- Popular SOT-23 packaging

#### **INDUCTORS**

Low-Profile, High-Current Inductors

## **IFSC**

 Very small ferrite power inductor for DC/DC conversion and filtering

#### **ICs**

Low-Voltage, Fault Protection, SP3T Analog Switch (3:1 Multiplexer / Demultiplexer)

#### DG2522

- 0.8 Ω low switch on-resistance and 105 MHz bandwidth
- Power over V+ rail protection with guaranteed low leakage under fault condition

#### **RESISTORS**

Thick Film Surface-Mount Chip Resistors, Wraparound, Extremely Low Value

#### **RCWE**

- Low resistance values from 0.01  $\Omega$  to 0.99  $\Omega$  and tolerance of 1 %
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#### RESISTORS

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#### ICs

1.1 V to 5.5 V, Slew Rate Controlled Load Switch

#### SiP32408

- Flat row R<sub>ON</sub> down to 1.2 V, 42 m $\Omega$  typical from 1.5 V to 5 V
- Slew rate controlled turn-on:
  2.5 ms at 3.6 V

#### RECTIFIERS

# Surface-Mount Schottky Barrier Rectifier

### SS32-M3

- Low-profile package
- Low power losses, high efficiency, low forward voltage drop, high surge capability















# 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.





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