



Vishay Intertechnology, Inc.

Telecommunications

(Mobile)



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





Telecom

Mobile

Smartphones	2
Wireless Modems	3
Wireless Charging	4

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 MOBILE



THE VISHAY ADVANTAGE

- High-Frequency Operation
- Small Size
- Low Profile
- High Q
- Optimized Impedance
- High SRF
- and more....

Smartphones



Wireless Modems



Wireless Charging





Smartphones



RESISTORS

Professional Thin Film Chip Resistors




[MCS0402...e3](#)

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

MOSFETs

P-Channel 1.2 V (G-S) MOSFET




[SiB417AEDK](#)

- Low on-resistance guaranteed with gate voltages down to 1.2 V
- 1.6 mm x 1.6 mm PowerPAK® SC-75 package for single battery cell portable applications

INDUCTORS

Low-Profile, High-Current Inductors




[IFSC0806AB](#)

- Very small, low-profile power inductor for DC/DC conversion
- Operation below 5 A

RECTIFIERS

Surface-Mount ESD Capability Rectifier




[MSE1PJ](#)

- AEC-Q101 qualified
- Very low profile – typical height of 0.65 mm

ICs

0.8 V to 2.5 V, 28 mΩ, Slew Rate Controlled Load Switch in WCSP4



[SiP32454](#), [SiP32408](#)

- Low and flat R_{ON} over the full operation voltage range
- Feature true reverse current blocking and output discharge on turn off

DIODES

3-Line On-The-Go Bus-Port Protection



[VBUS053CZ-HAF \(USB OTG\)](#)

- Compact LLP75-7L package
- Low capacitance between I/O lines: 0.3 pF

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

OPTOELECTRONICS

Fully Integrated Proximity and Ambient Light Sensor with I²C 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

ICs

Audio Jack Detector with Send / End Detect




[DG2592](#)

- Wide operating voltage range: 1.6 V to 5.5 V, low quiescent current of 10 μ A, max. at $V_{DD} = 1.8$ V
- Integrated sense comparator for audio L of 1.4 V \pm 5 % threshold

ICs

6.5 mΩ, Bidirectional Battery Switch in Compact WCSP




[SiP32101](#), [SiP32102](#)

- Bidirectional ON and OFF, ultra low R_{ON} , 6.5 mΩ (typ.) at 3.3 V, wide input voltage, 2.3 V to 5.5 V
- Slew rate controlled turn on, ultra-low quiescent current: 15 pA

RESISTORS

Power Metal Strip® Resistors, Very High Power, Low Value Surface-Mount




[WSLP0603](#)

- Very high power rating of 0.4 W in small 0603 package
- Extremely low resistance values from 0.01 Ω to 0.1 Ω and tolerance of 1 %

INDUCTORS

Low-Profile, High-Current IHLP® Inductors



[IHLP-1212AB](#)

- Very low profile high-current inductor for DC/DC conversion and filtering

View datasheets for these products www.vishay.com/ref/et3te1a




Wireless Modems




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

[SiA431DJ](#)


- Low on-resistance guaranteed with gate voltages down to 1.5 V
- 2 mm x 2 mm PowerPAK® SC-70 packaging for hand held applications

RESISTORS
High-Stability Thin Film Flat Chip Resistors

[TNPW0603](#)


- Excellent overall stability, endurance < 0.05 %, resistance range from 10R to 3M
- AEC-Q200 qualified, sulfur-resistant, halogen-free

RECTIFIERS
High-Voltage Surface-Mount Schottky Barrier Rectifier

[SS2PH10](#)


- AEC-Q101 qualified
- Very low profile – typical height of 1.0 mm

TANTALUM CAPACITORS
vPolyTan™ Polymer Tantalum Capacitors

[T55 Series](#)


- Ultra-low Equivalent Series Resistance (ESR)
- Higher voltage handling capability requires less voltage derating

CERAMIC CAPACITORS
Robust Design Build with Wet Process

[VJ1812Y223KXGAT](#)


- High breakdown voltage
- Polymer (soft) termination options

ICs
Low Power Consumption Current Mode Controller

[SiP2802DY](#)

- Pin-for-pin compatible with UCC280X, enhanced performance UC284X
- Advanced architecture enables complete offline and DC/DC designs with few components

TANTALUM CAPACITORS
Solid Tantalum Chip Capacitors TANTAMOUNT®, Low Profile, Conformal Coated

[592W](#)

- Maximum capacitance in low-profile packages
- Up to 2200 µF in a single 2.0 mm height package


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

[RCWE0402](#)

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


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)

RESISTORS
Power Metal Strip® Resistors, Low Value (Down to 0.005 Ω), Surface-Mount

[WSL0805](#)

- Low TCR element (< 20 ppm/°C) results in accurate current sensing in applications
- Power Metal Strip construction offers high reliability in critical applications

INDUCTORS
Low-Profile, High-Current IHLP® Inductors

[IFSC-1111AZ](#)

- Very small, low-profile power inductor for DC/DC conversion

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

View datasheets for these products www.vishay.com/ref/et3te1b



Wireless Charging



<p>INDUCTORS</p> <p>Wireless Charging Receiving Coil / Shield</p> <p>IWAS3827</p> <ul style="list-style-type: none"> Thin, efficient, low saturation Rx coil in a smaller size with same performance WPC and PMA compatibility, custom sizes also available 	<p>OPTOELECTRONICS</p> <p>Optocoupler with Phototransistor Output and Trigger Current of $I_F = 5\text{ mA}$</p> <p>VO617A</p> <ul style="list-style-type: none"> High current transfer ratio, and high isolation voltage of $5300\text{ V}_{\text{RMS}}$ Operating temperature from $-55\text{ }^\circ\text{C}$ to $+110\text{ }^\circ\text{C}$ in a DIP-4 or SMD package 	<p>CERAMIC CAPACITORS</p> <p>Economical Solution for Commodity Applications</p> <p>VJ...W1BC Series</p> <ul style="list-style-type: none"> High capacitance in X5R, X7R, and Y5V Small size enables miniaturization and board space savings 
<p>MOSFETs</p> <p>N-Channel 30 V (D-S) MOSFET</p> <p>SiS472ADN</p> <ul style="list-style-type: none"> High-density technology, with maximum $R_{\text{DS(on)}}$ down to $8.5\text{ m}\Omega$ Thermally enhanced PowerPAK[®] 1212-8 is 1/3 the size of an SO-8 	<p>RESISTORS</p> <p>Power Metal Strip[®] Resistors, Low Value (Down to $0.01\text{ }\Omega$), Surface-Mount</p> <p>WSL0603</p> <ul style="list-style-type: none"> Low TCR element ($< 20\text{ ppm}/^\circ\text{C}$) results in accurate current sensing in applications Power Metal Strip construction offers high reliability in critical applications 	<p>RECTIFIERS</p> <p>Surface-Mount Schottky Barrier Rectifiers</p> <p>MSS2P2</p> <ul style="list-style-type: none"> Very low profile – typical height of 0.65 mm AEC-Q101 qualified 
<p>NON-LINEAR RESISTORS</p> <p>SMD 0402, Glass Protected NTC Thermistors</p> <p>NTCS0402 10K 5 %</p> <ul style="list-style-type: none"> Tolerance on R_{25} down to $1\text{ }\%$ Glass protected with flex terminations 	<p>MOSFETs</p> <p>N-Channel 30 V (D-S) MOSFET</p> <p>SiA400EDJ</p> <ul style="list-style-type: none"> TrenchFET[®] technology providing low maximum $R_{\text{DS(on)}}$ of $19\text{ m}\Omega$ in a small package $2\text{ mm} \times 2\text{ mm}$ PowerPAK[®] SC-70 packaging 	<p>TANTALUM CAPACITORS</p> <p>Solid Tantalum Chip Capacitors 298D MICROTAN[®], 298W Extended Range MICROTAN 298D</p> <ul style="list-style-type: none"> High capacitance in small case sizes including 0603 and 0402 footprint Perfect for space constrained designs 
<p>INDUCTORS</p> <p>Wireless Charging Receiving Coil / Shield</p> <p>IWAS4832</p> <ul style="list-style-type: none"> Thin, efficient, low saturation Rx coil WPC and PMA compatibility, custom sizes also available 	<p>RESISTORS</p> <p>Thick Film Chip Attenuator, Surface-Mount, Unbalanced Π Type</p> <p>CZA</p> <ul style="list-style-type: none"> SMT chip attenuator in a resistor array pkg. with frequency range: DC to 3 GHz Single component reduces board space and parts count, replaces 3 or more parts 	<p>INDUCTORS</p> <p>Wireless Charging Transmitter Coil / Shield</p> <p>IWTX-4646BE-50</p> <ul style="list-style-type: none"> Wireless charging transmitter coil, high permeability shielding for wireless charging High saturation powdered iron – not affected by permanent locating magnets 

View datasheets for these products www.vishay.com/ref/et3te1c





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A *WORLD OF*
SOLUTIONS