

Key components for BODY ELECTRONICS



**Comfort, Door,
Window Controls**



**Infotainment,
Navigation, Audio**



**Interior
LED Lighting**



THE VISHAY ADVANTAGE
AEC Qualifications
High Power Density
Low Profile
Durability
Customization



Comfort, Door, Window Controls



MOSFETs

N-Channel MOSFETs in 5 mm x 6 mm PowerPAK®, 40 V, 58 A, 6.3m Ω




[SQJ868EP](#)

- AEC-Q101 qualified, 100 % UIS and RG tested with up to 175 °C operation
- Thermally enhanced PowerPAK SO-8L replaces DPAK in less than half of the area

RESISTORS

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




[RCWE](#)

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

INDUCTORS

Low-Profile, High-Current IHLP® Inductors




[IHLP-4040DZ-5A](#)

- Excellent high-current performance for noise filters
- High-temperature operation up to 155 °C

OPTOELECTRONICS

SMD Silicon PIN Photodiodes with Large Active Area for High Photo Currents




[VEMD5110X01](#)

- QFN package with wettable flanks, reduced noise sensitivity
- Wide operating temperature range of -40 ° to +110 °C, wide viewing angle of ± 65°

RECTIFIERS

Surface-Mount Schottky Barrier Rectifiers




[MSS1P4](#)

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

OPTOELECTRONICS

Ambient Light PIN Photodiode Sensors



[TEMd6200FX01](#)

- SMD 0805 package, low profile of 0.85 mm, wide viewing angle of ± 60 °
- Spectral sensitivity close to human eye, high signal output linearity

TANTALUM CAPACITORS

Solid Tantalum Chip Capacitors, High CV Leadframeless Molded, Automotive Grade




[TP3 / TP8](#)

- TP3 - AEC-Q200 qualified; low ESR; A, B, C, D and E cases
- TP8 - AEC-Q200 qualified

OPTOELECTRONICS

850 nm SMD Infrared Emitters




[VSMY1850ITX01](#)

- SMD 0805 package, low profile of 0.85 mm, high radiant intensity of 10 mW/sr
- Wide operating temperature range of -40 ° to +105 °C, wide viewing angle of ± 60°

DIODES

SMD Power ESD Diodes, Up to ± 30 kV, I_{FSM} = 50 A




[SMFxx](#)

- SMF package: 3.5 mm x 1.9 mm
- Breakdown voltage = 6.4 V to 64.4 V

OPTOELECTRONICS

Silicon PIN Photodiode with Excellent Output Linearity Characteristics




[VEMD6160X01](#)

- SMD 1206 package, daylight blocking filter, wide viewing angle of ±70°
- Low capacitance of 4.6pF, ideal for noisy environments and small signal detection

ALUMINUM CAPACITORS

Aluminum Capacitors, Increased Vibration Resistance




[246 CTI-V](#)

- High temperature, low impedance, high vibration capability
- High ripple current, long useful life

CERAMIC CAPACITORS

High Operating Temperature, Automotive Grade Leaded MLCC Capacitors



[HOTcap® K...H, A...R, K...R](#)

- High-reliability MLCC insert with wet build process
- High operating temperature (up to 175 °C for K...H and up to 160 °C for A...R and K...R), rated voltages: 50 V, 100 V, 200 V




Infotainment, Navigation, Audio



MOSFETs

Dual N-Channel MOSFETs in 5 mm x 6 mm PowerPAK®, 40 V, 11 mΩ / 22 mΩ




[SQJ942EP](#)

- AEC-Q101 qualified, 100 % UIS and RG tested with up to 175 °C operation
- Optimized for high-frequency DC/DC applications, lower switching losses

OPTOELECTRONICS

890 nm SMD Infrared Emitters



[VSMF970011X01](#)

- Low-profile PLCC² package, wavelength matched to sensitivity of proximity sensor
- External emitter to enable gesture function of proximity sensor

INDUCTORS

IHLP® High-Temperature (155 °C) Parts in Double Inductor Package




[IHLD-4032KB-5A](#)

- Optimal design provides high quality sound and low distortion
- Low coupling for minimal cross-talk between inductors

RESISTORS

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




[RCWE0603](#)

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

OPTOELECTRONICS

Integrated Proximity and Ambient Light Sensors with I²C Interface




[VCNL4020X01](#)

- Low-profile QFN SMD package, 16 bit resolution, proximity distance up to 200 mm
- Suitable for extended detection range, gesture function with external emitters

MOSFETs

Dual N-Channel MOSFETs in 5 mm x 6 mm PowerPAK®, 12 V, 2.7 mΩ / 7.4 mΩ

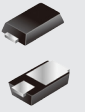


[SQJ202EP](#)

- AEC-Q101 qualified, 100 % UIS and RG tested with up to 175 °C operation
- Low-voltage, high-frequency synchronous buck applications, lower switching losses

RECTIFIERS

Surface-Mount Schottky Barrier Rectifiers




[MSS1P4](#)

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

INDUCTORS

Low-Profile, High-Current IHLP® Inductors



[IHLP-2525CZ-5A](#)

- Excellent high-temperature performance for DC/DC converter input and output filters

RESISTORS

Precision Thin Film Resistor Arrays, Superior Moisture Resistivity, TCR ± 0.05



[ACAS 0606 AT](#)

- Arbitrary resistance ratio up to 1:20, superior tracking stability over lifetime
- Relative TCR down to ± 5 ppm/K (tracking), AEC-Q200 qualified

TANTALUM CAPACITORS

Solid Tantalum Chip Capacitors, High CV Leadframeless Molded, Automotive Grade



[TP8](#)

- Smallest AEC-Q200 qualified tantalum capacitors with case sizes as small as 0603

CERAMIC CAPACITORS

AEC-Q200 Qualified, Broad Range of Sizes and Working Voltages, C0G (NPO), X7R, and X8R



[VJ...31X RoHS Automotive MLCCs](#)

- RoHS and Green compliant parts available
- AgPd termination available for epoxy bonding

INDUCTORS

High-Curent SMD Inductors with E-Field Shielding and 155 °C Operating Temperature




[IHLE-3232DD-5A](#)

- Excellent EMI protection, double-shielded




Interior LED Lighting



RESISTORS
Pulse-Proof, High-Power Thick Film Chip Resistors

[CRCW-HP e3](#)

- Excellent pulse load capability
- Enhanced power rating


MOSFETs
P-Channel MOSFETs in 3 mm x 3 mm PowerPAK® 1212, -60 V, -16 A, 65 mΩ

[SQ7415AENW](#)

- AEC-Q101 qualified, 100 % UIS and RG tested with up to 175 °C operation
- High power density PowerPAK® 1212 with wettable flanks for AOI

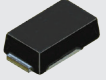
RECTIFIERS
Surface-Mount Schottky Barrier Rectifiers

[MSS1P6](#)

- Low-profile MicroSMP package for low-voltage, high-frequency inverters; DC/DC converters; and polarity protection applications

MOSFETs
N-Channel MOSFETs in 3 mm x 3 mm PowerPAK® 1212, 60 V, 18 A, 23 mΩ

[SQ7414AENW](#)

- AEC-Q101 qualified, 100 % UIS and RG tested with up to 175 °C operation
- High power density PowerPAK® 1212 with wettable flanks for AOI


RECTIFIERS
100 V, 2 A High-Voltage Schottky Diodes, T_j = 175 °C

[SS2PH10](#)

- SMP(DO-220AA) package, 3.7 mm x 2.18 mm


RESISTORS
Power Metal Strip® SMD Resistors, Wide Terminal, 1 mΩ to 3 mΩ, 1 W

[WSL0612](#)


- Low EMF, high temperature up to 170 °C

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

[RCWE0603](#)

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

NON-LINEAR RESISTORS
SMD Glass-Protected NTC Thermistors

[NTCS...e3](#)

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

INDUCTORS
Low-Profile, High-Current IHLP® Inductors

[IHLP-1616BZ-A1](#)

- Shielded construction, lowest DCR/μH in this package size
- Excellent DC/DC energy storage up to 5 MHz

TANTALUM CAPACITORS
Solid Tantalum Molded Chip Capacitors, Automotive Grade

[TP3](#)

- AEC-Q200 qualified, low ESR
- A, B, C, D, and E cases

