主要元件

底盘控制

电动助力转向
(无刷直流电机驱动)

变速箱 ECU、
双离合器无刷直流

VISHAY 优势

通过 AEC 认证
高功率密度
高脉冲电流耐受力
小尺寸
长寿命
超薄

电动助力转向 (无刷直流电机驱动)

ALUMINUM CAPACITORS

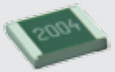
SMD Aluminum Capacitors, High Temperature Up to 150 °C, Low ESR

260 CLA-V

- High ripple current up to 1400 mA at 150 °C, capacitance up to 3300 µF
- Useful life up to 2000 h at 150 °C, high vibration capability

RESISTORS

Thin Film Resistors, 4.7 Ω to 3.01 MΩ, 0402 to 1210 Case Sizes, 50 V to 200 V



TNPW e3

- Excellent stability |ΔR/R| ≤ 0.05 % after 1000 h at 70 °C, 0402 to 1210 case sizes

MOSFETs

N-Channel MOSFETs in 8 mm x 8 mm PowerPAK®, 40 V, 160 A, 1.2 mΩ

SQJQ100EL

- AEC-Q101 qualified, 100 % UIS and RG tested with up to 175 °C operation
- Ultra-low $R_{DS(on)}$, thermally enhanced PowerPAK® 8x8L replaces D^2PAK in less than half of the area

MOSFETs

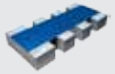
N-Channel MOSFETs as Known Good Die (KGD) Rated at 40 V, 0.72 mΩ

SQC200N04-0m72KGD

- AEC-Q101 qualified, 100 % UIS and RG tested with up to 175 °C operation
- Efficient KGD packaging allows high power density and reduced parasitics

RESISTORS

Precision Thin Film Chip Resistor Arrays, Superior Moisture Resistivity

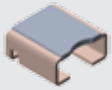


ACAS0612 AT Precision

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

RESISTORS

Power Metal Strip® SMD Resistors, 4-Terminal, Low Value (Down to 0.0001 Ω)



WSK1216

- High power rating of 3 W to 5 W with TCR = 20 ppm/K
- Very low resistance values, 0.0001 Ω to 0.004 Ω, with tolerance of 1%

OPTOELECTRONICS

3-Channel SMD Transmissive Sensors for "Turn and Push" Optical Encoding

TCUT1630X01

- Wide operating temperature range of -40 °C to +110 °C, 3 output channels
- Sensing of motion, speed, and direction; third channel for trigger signal

NON-LINEAR RESISTORS

SMD Glass-Protected NTC Thermistors

NTCS...e3

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

INDUCTORS

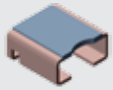
Shielded SMD Low-Profile, High-Current IHLP® Inductors, EMI Filters, 155 °C, Low DCR

IHLP-6767GZ-5A

- Very high-current and high-temperature operation for filters

RESISTORS

Power Metal Strip® SMD Resistors



WSLP2726

- Very high power (7 W)
- Resistance = 0.3 mΩ to 4 mΩ

INDUCTORS

Shielded EMI Filters Up to 190 A I_{DCR} , 2.2 µH, Ultra-Low DCR (0.22 mΩ)

IHXL-2000VZ-5A

- Very high-current and high-temperature operation for filters and energy storage

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

www.vishay.com

变速箱 ECU，双离合器无刷直流

www.vishay.com

MOSFETs

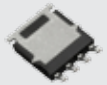
N-Channel MOSFETs as Known Good Die (KGD) Rated at 40 V, 0.72 mΩ

SQC200N04-0m72KGD

- AEC-Q101 qualified, 100 % UIS and RG tested with up to 175 °C operation
- Efficient KGD packaging allows high power density and reduced parasitics

MOSFETs

N-Channel MOSFETs in 5 mm x 6 mm PowerPAK® SO-8L Rated at 40 V, 3.0 mΩ



SQJA46EP

- 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

MOSFETs

Dual N-Channel MOSFETs in 8 mm x 8 mm PowerPAK®, 40 V, 100 A, 3.4 mΩ

SQJQ904E

- AEC-Q101 qualified, 100 % UIS and RG tested with up to 175 °C operation
- High power density dual PowerPAK® 8x8L offers significant reduction in PCB area

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

RECTIFIERS

High Current Density Surface-Mount Schottky Barrier Rectifiers

SS3P4L

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

INDUCTORS

Coupled Inductors for SEPIC Converter

IHCL-3232DZ-5A

- High-temperature operation up to 155 °C
- Frequency range up to 5.0 MHz

DIODES

600 W, 6.8 V to 51 V SMD PAR® TVS Diodes

TA6Fxx

- T_j = 185 °C
- Very low profile - typical height of 0.95 mm

RESISTORS

Power Metal Strip® SMD Resistors, Wide Terminal, 1 mΩ to 30 mΩ, 2 W

WSLP2010

- Very high power to footprint size ratio (2 W in 2010)
- Construction is impervious to high-sulfur environments

RESISTORS

SMD Thick Film Resistors, High Stability

RCA0603

- TCR = 50 to 200 ppm/K
- Sulfur-resistant

NON-LINEAR RESISTORS

SMD Glass-Protected NTC Thermistors

NTCS...e3

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

INDUCTORS

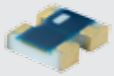
Low-Profile, High-Current IHLP® Inductors

IHLP-2525CZ-5A

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

RESISTORS

Precision Gold Terminated Thin Film Chip Resistor Arrays for Conductive Gluing



ACAS 0606 ATAU Precision

- Glueable gold terminations, resistance ratio up to 1:20, tolerance ± 0.05 %
- AEC-Q200 qualified, extreme sulfur resistance, superior tracking stability

聚焦 Power Metal Strip® 电阻器

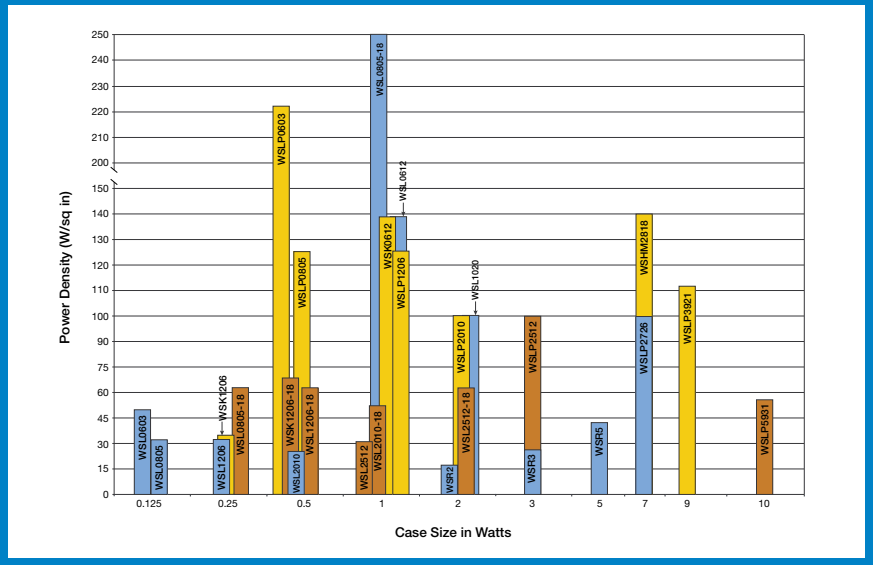
结合低 TCR (< 30 ppm/°C)、低阻值 (低至 0.2 mΩ)、紧公差和耐高温性能

Vishay 的 Power Metal Strip® 电流采样电阻器在高温应用中表现优异，并提供广泛的封装尺寸和 0.0002 Ω - 1 Ω 可选阻值。这些具有专利的最先进产品提供与绕线电阻器相同的过载能力和低至 30 ppm/°C 的温度系数。

Power Metal Strip 电流采样电阻器用于通过将电流转变为容易监测的电压来监测电路电流。这些器件可使电路中的电流达到校准电平，从而使控制电路能够检测和监控电压降。Power Metal Strip 电阻器的低阻值允许以卓越效率执行此功能。

高功率密度 (可达 222 W/in²，34.4 W/cm²)

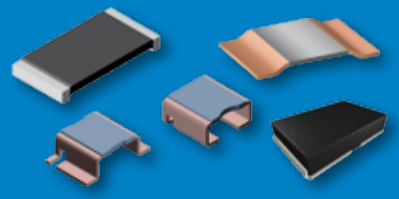
Vishay 的 Power Metal Strip 电阻器已发展到“高功率”WSL...-18、WSLP、WSR3、WSR5 和 WSHM2818 电阻器。精心挑选的材料和工艺使这些元件的额定功率可达 10 W。WSL...-18、WSLP、WSR3、WSR5 和 WSHM2818 电阻器提供高功率/封装尺寸比，同时实现优异的电特性。高额定功率使设计工程师能够使用更小的 PCB，进而加快制造速度和降低原材料成本。



Vishay 高功率表面贴装 Power Metal Strip 电流采样电阻器

特性

- 小外壳尺寸，高功率：可达 10 W
- 非常低的阻值：0.0002 Ω - 1.0 Ω
- 阻值容差小：低至 ± 0.1 %



低电阻温度系数 (TCR) (低至 30 ppm/°C)

小阻值 Vishay Power Metal Strip 的低 TCR 变化归因于自热和高温环境。

此图比较了 30 ppm/°C Vishay Power Metal Strip 电阻器与典型 100 ppm/°C metal strip 及 700 ppm/°C 厚膜片式电阻器的电压。