


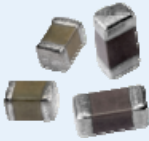

MEDICAL / HIGH RELIABILITY

[Defibrillators](#)
[Meters / Pumps](#)
[X-Ray incl. Power Supplies](#)
[Space and Defense](#)



DEFIBRILLATORS

MAINS AND PORTABLE

Series	Image	Advantage	Features	Resources
MELF Best in class SMD pulse handling resistors		Best in class SMD pulse handling due to large resistance area. Robust, reliable, and superior long term stability	Pulse capability up to 10 kV Long term stability $\leq 0.05\%$ Superior reliability	Datasheet Infographic Did You Know
RF MLCC (EIA) High frequency in EIA case sizes		Tight tolerance and high Q enable consistent and reliable filtering and high temperature operation in GaN, communications, and high reliability applications	Tight tolerance (± 0.05 pF) / high Q Operation to $+200^\circ\text{C}$ Automotive and military grade	Datasheet Infographic Overview
CRCW-HP SMD high power, high pulse resistors		Pulse handling to 10x and power rating to 3x competing devices. High current zero-ohm jumper	Double-sided resistive layer Pulse load up to 10x better 0.5 W 0805, 0.75 W 1206	Datasheet Article Overview



METERS / PUMPS

BLOOD, INFUSION, DIALYSIS, INSULIN

Series	Image	Advantage	Features	Resources
TM3 Medical-grade tantalum capacitors		High reliability for hot-plugging surges on battery chargers, low drop-out devices, and capacitor charge pumps	1 μF to 220 μF 4 V to 20 V B, C, D, and E cases	Datasheet Overview Technical Article
NTCS SMD temperature sensors		Accurate on-board temperature measurement. Enhanced stability version (lifetime temperature drift $\leq 0.1\text{ }^\circ\text{C}$). Soft terminations for improved thermal cycling	Ultra stable (NTCS...SMT) -40 $^\circ\text{C}$ to +150 $^\circ\text{C}$ UL and AEC-Q200	Datasheet Infographic Did You Know
PTS-AT Platinum RTD		Best in class accuracy and stability for high temperature sensing (+175 $^\circ\text{C}$). Standardized linear temperature characteristic for ease of measurement	Tolerance classes F0.3 / F0.6 Superior stability at +175 $^\circ\text{C}$ AEC-Q200	Datasheet Infographic
196HVC Hybrid energy storage capacitors		Backup optimization with higher energy density. Higher power density than batteries. Long life and wide temperature operation	Voltage options to 8.4 V Various mounting options Useful life of 2000 h at 85 $^\circ\text{C}$	Datasheet Infographic Did You Know Application Note
VJ MLCC (EIA) High frequency in EIA case sizes		Tight tolerance and high Q enable consistent and reliable filtering and high temperature operation in GaN, communications, and high reliability applications	Tight tolerance ($\pm 0.05\text{ pF}$) / high Q Operation to +200 $^\circ\text{C}$ Automotive and military grade	Datasheet Infographic Overview
WFM High stability current sense resistors		Excellent stability at high temperatures. Also provides high power at medium resistance values	Down to 0.005 Ω 3 W P_{70} Wide resistance range	Data Sheet Infographic Did you Know
WSHP High power density current sense resistors		High power and laser trimmed for resistance flexibility. Enable circuit tuning and improves efficiency and accuracy	Down to 0.001 Ω 10 W P_{70} Low thermal EMF < 3 $\mu\text{V}/^\circ\text{C}$	Datasheet Infographic Did You Know
UIPMA Ultraflat displacement sensor		Waterproof solution that is space saving and easy to mount with an adhesive layer. Excellent durability	Linear and angular displacement Ultra thin profile of 0.5 mm Waterproof to IP65	Datasheet Infographic Did You Know



METERS / PUMPS

BLOOD, INFUSION, DIALYSIS, INSULIN

Series	Image	Advantage	Features	Resources
T55 Low ESR polymer capacitors		Low ESR (> 6 mΩ) for bulk energy storage and improved filtering, decoupling, and smoothing	2.5 V to 63 V ≤ 1000 μF ESR as low as 6 mΩ	Datasheet Infographic Did You Know
T59 High voltage polymer capacitors		High capacitance in a lead frameless design provides space savings with stable capacitance over the operating temperature range	16 V to 75 V ≤ 470 μF (20 mΩ) 100 % surge current tested	Data Sheet Infographic Did you Know
ORNV Gain control networks		Built-in reference resistor improves tracking over temperature and application life. Standard five-resistor network offers optimum ratio precision, device size, and stability	Ratio tolerance of 0.05 % TCR tracking of ± 5 ppm/°C Low profile 0.068 in seated	Datasheet Overview
MPM Voltage dividers		Matched pair resistors in a SOT23 package provide a compact design with superior tracking and matching	Ratio tolerance of 0.01 % TCR tracking of ± 2 ppm/°C ΔR 0.015 % / 2000 h at +70 °C	Datasheet Overview
DFN/QFN Signal conditioning networks		Significant (< 50 %) space-saving dual and quad flat leadless packages vs. leaded SOIC devices	Ratio tolerance of 0.05 % TCR tracking of ± 2 ppm/°C Dual / quad leadless	Datasheet Overview
MORN Gain control networks		Space-saving, four-resistor package with close TCR tracking and tight ratio tolerance. Ideal for op-amp circuits	Ratio tolerance of 0.01 % TCR tracking of ± 1 ppm / °C Low profile 0.043 in seated	Datasheet Overview
F340 Series THB Safety Capacitors		Provides full agency-approved safety capacitors for harsh environments Passes THB testing – 85 °C, 85 % relative humidity, 1000 h at rated voltage	X1 – 530 VAC, 220 nF – 8.2 μF X2 – 1 μF – 20 μF Y2 – 0.001 μF – 1 μF	Datasheets Agency certifications



X-RAY INCL. POWER SUPPLIES

MEDICAL, DENTAL, INDUSTRIAL, CARGO AND BAGGAGE HANDLING

Series	Image	Advantage	Features	Resources
HVCC High capacitance (2 nF) SLC safety capacitors		Very high capacitance (> 2 nF) enables significant board space savings	10 kV _{DC} , 15 kV _{DC} Up to 2nF Murata DHR (EOL)	Datasheet Infographic Did You Know
715C High voltage ceramic disc capacitors		Used for high voltage sensing and multiplying. Widest capacitance range on the market enables volumetric efficiency. Also serves as a drop-in replacement for competitor parts	10 kV _{DC} – 50 kV _{DC} Up to 20 nF Murata DHS / DHK (EOL)	Datasheet Infographic Overview
VJ Safety X2 MLCC safety capacitors		Small surface-mount package simplifies assembly (pick and place vs. hand assembly). Automotive Grade for OBC applications	SMD → small form factors X7R and NP0 (C0G) ceramics Automotive Grade available	Datasheet Infographic Overview
TM3 Medical-grade tantalum capacitors		High reliability for hot-plugging surges on battery chargers, low drop-out devices, and capacitor charge pumps	1 μF to 220 μF 4 V to 20 V B, C, D, and E cases	Datasheet Overview Technical Article
CH Microwave resistors		Microwave resistors with best in class performance at high frequency operation (up to 50 GHz)	Up to 50 GHz Best in class frequency behavior 0216, 0402, and 0603 10 Ω to 500 Ω	Datasheet Infographic Did You Know
RCEC Power resistors with auxiliary heatsink		Industry's best power / energy to size ratio. Excellent dielectric strength and partial discharge	High power / small package 400 W, 750 W, and 800 W 0.3 Ω to 1 MΩ	Datasheet Did You Know
RH/NH Aluminum-housed resistors		High power in a small package. Can be mounted completely flat on a heatsink	≤ 160 kΩ ≤ 250 W P ₂₅ Tolerance down to 0.05 %	Datasheet Did you Know
T55 Low ESR polymer capacitors		Low ESR (> 6 mΩ) for bulk energy storage and improved filtering, decoupling, and smoothing	2.5 V to 63 V ≤ 1000 μF ESR as low as 6 mΩ	Datasheet Infographic Did You Know
T59 High voltage polymer capacitors		High capacitance in a lead frameless design provides space savings with stable capacitance over the operating temperature range	16 V to 75 V ≤ 470 μF (20 mΩ) 100 % surge current tested	Data Sheet Infographic Did you Know



X-RAY INCL. POWER SUPPLIES

MEDICAL, DENTAL, INDUSTRIAL, CARGO AND BAGGAGE HANDLING

Series	Image	Advantage	Features	Resources
ORNV Gain control networks		Built-in reference resistor improves tracking over temperature and application life. Standard five-resistor network offers optimum ratio precision, device size, and stability	Ratio tolerance of 0.05 % TCR tracking of ± 5 ppm/ $^{\circ}$ C Low profile 0.068 in seated	Datasheet Overview
MPM Voltage dividers		Matched pair resistors in a SOT23 package provide a compact design with superior tracking and matching	Ratio tolerance of 0.01 % TCR tracking of ± 2 ppm/ $^{\circ}$ C ΔR 0.015 % / 2000 h at +70 $^{\circ}$ C	Datasheet Overview
DFN/QFN Signal conditioning networks		Significant (< 50 %) space-saving dual and quad flat leadless packages vs. leaded SOIC devices	Ratio tolerance of 0.05 % TCR tracking of ± 2 ppm/ $^{\circ}$ C Dual / quad leadless	Datasheet Overview
MORN Gain control networks		Space-saving, four-resistor package with close TCR tracking and tight ratio tolerance. Ideal for op-amp circuits	Ratio tolerance of 0.01 % TCR tracking of ± 1 ppm / $^{\circ}$ C Low profile 0.043 in seated	Datasheet Overview
MELF Best in class SMD pulse handling resistors		Best in class SMD pulse handling due to large resistance area. Robust, reliable, and superior long term stability	Pulse capability up to 10 kV Long term stability ≤ 0.05 % Superior reliability	Datasheet Infographic Did You Know
NTCS SMD temperature sensors		Accurate on-board temperature measurement. Enhanced stability version (lifetime temperature drift ≤ 0.1 $^{\circ}$ C). Soft terminations for improved thermal cycling	Ultra stable (NTCS...SMT) -40 $^{\circ}$ C to +150 $^{\circ}$ C UL and AEC-Q200	Datasheet Infographic Did You Know
MKP1848H THB DC-Link Capacitors		Gives engineers high capacitance and current capabilities in harsh environments Passes THB testing – 85 $^{\circ}$ C, 85 % relative humidity, 1000 h at rated voltage	AEC-Q200 approved 1 μ F – 80 μ F 500 VDC – 1200 VDC	Contact marketing for custom product information
MKP1848S Low Profile DC-Link		Low profile construction allows for easy use in tight spaces such as micro-inverters AEC-Q200 qualification (in process) will allow this capacitor to be used in wireless EV charging applications where clearance is key	2 μ F – 100 μ F Tolerance: ± 5 % 500 VDC – 1000 VDC Temperature range: 105 $^{\circ}$ C	Datasheet Infographic Did You Know
F340 Series THB Safety Capacitors		Provides full agency-approved safety capacitors for harsh environments Passes THB testing – 85 $^{\circ}$ C, 85 % relative humidity, 1000 h at rated voltage	X1 – 530 VAC, 220 nF – 8.2 μ F X2 – 1 μ F – 20 μ F Y2 – 0.001 μ F – 1 μ F	Datasheets Agency certifications



SPACE AND DEFENSE

DEFENSE EQUIPMENT, SURVEILLANCE, SATELLITE, AND SPACE EXPLORATION

Series	Image	Advantage	Features	Resources
SGIHLP Space-grade (MIL-STD-981) IHLP® inductors		High current device that meets MIL_STD-981 and can be used up to +180 °C. Small lightweight package for harsh conditions up to 100 A	Seven high current packages High power density Saturation current to 100 A	Datasheet Infographic
CH Microwave resistors		Microwave resistors with best in class performance at high frequency operation (up to 50 GHz)	Best in class frequency behavior 0216, 0402, and 0603 10 Ω to 500 Ω	Datasheet Infographic Did You Know
RH/NH Aluminum-housed resistors		High power in a small package. Can be mounted completely flat on a heatsink	≤ 160 kΩ ≤ 250 W P ₂₅ Tolerance down to 0.05 %	Datasheet Did you Know
T55 Low ESR polymer capacitors		Low ESR (> 6 mΩ) for bulk energy storage and improved filtering, decoupling, and smoothing	2.5 V to 63 V ≤ 1000 μF ESR as low as 6 mΩ	Datasheet Infographic Did You Know
T59 High voltage polymer capacitors		High capacitance in a lead frameless design provides space savings with stable capacitance over the operating temperature range	16 V to 75 V ≤ 470 μF (20 mΩ) 100 % surge current tested	Data Sheet Infographic Did you Know
IHLD Dual inductors		Low profile (< 10 mm), high current (< 6 A). Two-inductor package provides space-saving solution for applications up to +155 °C. Optimized for class D amplifier circuits	10 μH to 33 μH DCR (max.) of 32.8 mΩ to 107 mΩ High temperature to +155 °C	Datasheet Overview
IHLE E-field shield inductors		Automotive Grade low profile, high current inductor with integrated E-field shield. Saves space and eliminates production costs. Up to 20 dB electric field reduction at 1 cm	High current ≤ 30 A Excellent DC/DC energy Reduced EMI	Datasheet Infographic Did You Know
MELF Best in class SMD pulse handling resistors		Best in class SMD pulse handling due to large resistance area. Robust, reliable, and superior long term stability	Pulse capability up to 10 kV Long term stability ≤ 0.05 % Superior reliability	Datasheet Infographic Did You Know
TNPW High stability SMD resistors		Precision and long term stability. Sulfur-resistant with superior moisture resistivity	Long term stability ≤ 0.05 % Precision 0.1 %, 10 ppm Moisture resistivity 85 / 85	Datasheet Did you Know Technical Article



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