

A RESISTOR COMPANY QUIETLY GROWING BY WORD OF MOUTH

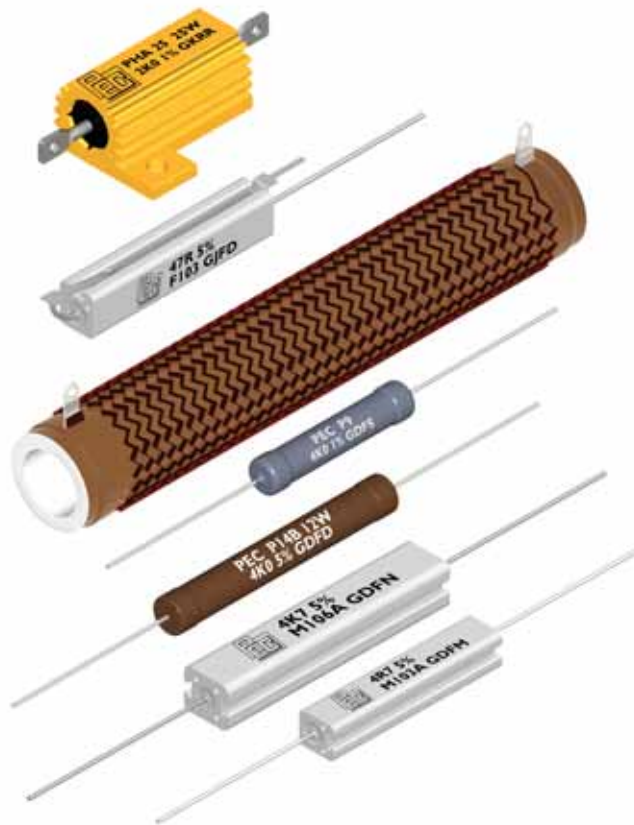


an **experienced** partner

PEC Deliver

- Vitreous Enamel and Silicone Coatings
 - Ceramic, Moulded and Aluminium Housings
 - JIT Deliveries
 - Self-Certified Shipments
 - Full Traceability through Production
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- Values from 1 m Ω to 1 M Ω
 - Power from 0.1W to 1,000W
 - Tolerance from 0.01% to 10%
 - Low-ohm Current Sensing

“*Thirty Five years of making specials makes a specialist.*”



Ask our customers in which area of resistor technology we specialise, and you could receive a number of different answers. We may have devised special solutions to their problems, but used a different technology for each. Over the past thirty five years we have tackled problems and proposed solutions for such diversity, that we now claim unparalleled expertise in custom-designed resistive products.







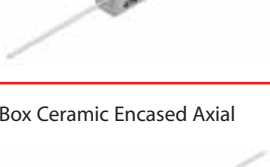
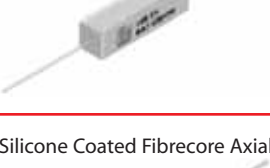
Particularly for traction, generation and power drives, for electronic controls, inverters and braking requirements, PEC has developed a variety of low cost solutions ranging from 1 Watt in SMD packages to 1 kW. Key specialisms are inrush current absorption and discharge loads.

And remember...

You won't be required to demonstrate a potential demand for hundreds of thousands. We will carefully handmade just a few, or alternatively set up a new product line.









“*PEC welcomes the opportunity to share in your problems. In seeking solutions to the problems of the past we have acquired the expertise we boast today. In solving today's problems we are confident we open the door to more sophisticated solutions. Take a look through this short brochure, visit the website or better still put us to the test. It could be the best thing you do today!*”

G E T T I N G B I G G E R B Y B E I N G B E T T E R






Resistor Construction	PEC Series	Power	Ohmic Range	Tol. %	TCR ppm/K	Key Features
Vitreous Enamelled Axial 	PVA	3W - 14W	0R1 - 100K	1%, 2% 5%, 10%	Max: < 200 Typical: < 100	<ol style="list-style-type: none"> 1. Impervious Vitreous Enamel. 2. High Pulse Overload Capability. 3. Meets CECC 40201 Specification. 4. Meets JSS 50402 Specification. 5. Green Enamel Colour. 6. Allows High Speed Lead Forming. 7. PEC Resistors are RoHS compliant.
Vitreous Enamelled Axial 	PVAB	3W - 12W	0R1 - 100K	1%, 2% 5%, 10%	Max: < 150 Typical: < 75	<ol style="list-style-type: none"> 1. Impervious Vitreous Enamel. 2. High Pulse Overload Capability. 3. Ref. MIL-R-26 Specifications. 4. USA Form and Fit Design. 5. Brown Enamel Colour. 6. Allows High Speed Lead Forming. 7. PEC Resistors are RoHS compliant.
Silicone Coated Axial 	PIA	1W - 14W	0R01 - 120K	0.1%, 0.5% 1%, 2%, 5%	Max: < 150 Typical: < 75 On Request: < 20.	<ol style="list-style-type: none"> 1. High Temp Silicone Coating. 2. Close Tolerance, Low TCR. 3. Non Inductive Versions. 4. Approved since 1977 to JSS 50402. 5. High Surge Version Available. 6. Meets CECC 40201 Specs. 7. PEC Resistors are RoHS compliant.
Silicone Coated Axial - US Spec. 	PIAM	1W - 10W	0R01 - 120K	0.05%, 0.1% 0.5%, 1%, 2%, 5%	< 1R: < 90 1R - 9R9: < 50 > 10R: < 20	<ol style="list-style-type: none"> 1. High Temp. Silicone Coating. 2. Close Tolerance, Low TCR. 3. Non Inductive Versions. 4. MIL-PRF-26 Specs - Char. U, V. 5. High Surge Version Available. 6. Low Temperature Rise. 7. PEC Resistors are RoHS compliant.
Slotted Ceramic Encased Axial 	PGMA	4W - 17W	0R1 - 27K	2%, 5%, 10%	Low Values: < 450 Med / High: < 150 On Request: < 50, 20.	<ol style="list-style-type: none"> 1. Slotted Ceramic Body. 2. High Insulation Resistance. 3. Ceramic or Fibrecore Former. 4. High Surge Version Available. 5. Low Temperature Rise. 6. Non Flammable Construction. 7. PEC Resistors are RoHS compliant.
Square Ceramic Encased Axial 	PCA	4W - 17W	0R1 - 27K	2%, 5%, 10%	Low Values: < 450 Med / High: < 150 On Request: < 50, 20.	<ol style="list-style-type: none"> 1. Square Ceramic Body. 2. High Insulation Resistance. 3. Fibre-core Former. 4. High Surge Version Available. 5. Low Temperature Rise. 6. 4W / 5W Available in Taped Form. 7. PEC Resistors are RoHS compliant.
Box Ceramic Encased Axial 	PBA	2W - 20W	0R1 - 15K	1%, 2% 5%, 10%	Low Values: < 450 Med/High: < 150 On Request: < 20.	<ol style="list-style-type: none"> 1. Box Style Ceramic Case. 2. High Insulation Resistance. 3. Salt Fog Withstanding Versions. 4. High Surge Version Available. 5. Non Inductive Resistors Available. 6. Low TCR Available. 7. PEC Resistors are RoHS compliant.
Silicone Coated Fibrecore Axial 	PGA	1W - 9W	0R33 - 12K	5%, 10%	Low Values: < 450 Med / High: < 200.	<ol style="list-style-type: none"> 1. Silicone Coated. 2. Fibre-core Former. 3. Crimped Contacts. 4. Shatter Proof Design. 5. Low Cost. 6. PEC Resistors are RoHS compliant.

GETTING BIGGER BY BEING BETTER

Resistor Construction	PEC Series	Power	Ohmic Range	Tol. %	TCR ppm/K	Key Features
Ceramic Encased Fusible - Axial 	PGFA	1.5W - 7W	0R2 - 27K	5%, 10%	Max: < 200 Typical: < 100	<ol style="list-style-type: none"> 1. Designed to Fuse at Overloads. 2. Ceramic Encased Design. 3. Fuse Rewireable in field. 4. Withstands High Short Term Surges. 5. PEC Resistors are RoHS compliant.
Ceramic Encased Fusible - Vertical 	PGF	1.5W - 7W	0R2 - 27K	5%, 10%	Max: < 200 Typical: < 100	<ol style="list-style-type: none"> 1. Designed to Fuse at Overloads. 2. Ceramic Encased Design. 3. Fuse Rewireable in field. 4. Withstands High Short Term Surges. 5. Vertical PCB Mounting. 6. In-rush Protection Resistor. 7. PEC Resistors are RoHS compliant.
Tubular Power - Silicone Coated 	PPR	5W - 500W	0R1 - 100K	1%, 2%, 5%, 10% On Request: 0.1%, 0.5%	Max: < 200 Typ.: < 50, 75 On Request: < 20.	<ol style="list-style-type: none"> 1. High Temp Silicone Coating. 2. Close Tolerance, Low TCR. 3. Non Inductive Versions Available. 4. Approved since 1977 to JSS 50402. 5. High Surge Versions Available. 6. PEC Resistors are RoHS compliant.
Tubular Power - Vitreous Enamelled 	PVR	5W - 900W	0R1 - 100K	5%, 10% On Request: 1%, 2%	Med/High Values: < 150 Low Values: < 450.	<ol style="list-style-type: none"> 1. Rugged Enamel Coating. 2. Non Inductive Versions. 3. Withstands High Short Term Surges. 4. High Moisture Resistance. 5. Quick Connect Terminals Available. 6. Choice of Terminals. 7. PEC Resistors are RoHS compliant.
Tubular Edge Wound - Vitreous Enamelled 	PVRC	40W - 1000W	0R1 - 25R	5%, 10%	Max: < 260 Typical: < 100.	<ol style="list-style-type: none"> 1. Rugged Enamel Coating. 2. Edge Winding for Higher Power. 3. Withstands High Short Term Surges. 4. Suitable for Motor Control. 5. Quick Connect Terminals Available. 6. Choice of Terminals. 7. PEC Resistors are RoHS compliant.
Silicone Coated PCB Pluggable 	PGR	2W - 8W	0R2 - 22K	5%, 10%	Low Values: < 450 Med/High: < 150 On Request: < 20.	<ol style="list-style-type: none"> 1. PCB Pluggable Resistor. 2. High/Low Profile Terminals. 3. Fibre-core Former. 4. Low Cost Design. 5. High Surge Versions Available. 6. Uncoated Versions Available. 7. PEC Resistors are RoHS compliant.
Box Ceramic Encased - Radial 	PBR	3W - 40W	0R1 - 50K	5%, 10% On Request: 1%, 2%	Low Values: < 450 Med / High: < 200.	<ol style="list-style-type: none"> 1. Boat Ceramic Encased. 2. High Insulation Resistance. 3. High Surge Version Available. 4. Non Inductive Versions Available. 5. Low TCR Available. 6. Quick Connect Terminals Available. 7. PEC Resistors are RoHS compliant.
Vertical Box Ceramic Encased 	PQM	2W - 10W	0R05 - 20K	1%, 2%, 5%, 10%	Low Values: < 450 Med / High: < 200 On Request: < 20.	<ol style="list-style-type: none"> 1. Vertical Boat Ceramic Encased. 2. High Insulation Resistance. 3. Salt Fog Withstanding Versions. 4. High Surge Versions Available. 5. Non Inductive Resistors Available. 6. Low TCR Available. 7. PEC Resistors are RoHS compliant.

Resistor Construction	PEC Series	Power	Ohmic Range	Tol. %	TCR ppm/K	Key Features
Slotted Ceramic Encased Vertical / Dual 	PGM/PGMD	4W - 17W	0R1 - 27K	2%, 5%, 10%	Low Values: < 450 Med / High: < 150 On Request: < 20.	<ol style="list-style-type: none"> 1. Slotted Ceramic Encased. 2. High Insulation Resistance. 3. Ceramic or Fibrecore Former. 4. High Surge Versions Available. 5. Vertical Support Pillar-on request. 6. Dual Mounting Option. 7. PEC Resistors are RoHS compliant.
Aluminium Housed Chassis Mount 	PHA	25W - 50W	0R05 - 100K	0.1%, 0.5% 1%, 2% 5%, 10%	1R-9R9: < 100 > 10R: < 50 MIL: < 20	<ol style="list-style-type: none"> 1. Moulded into Aluminium Housing. 2. High Power / Size Ratio. 3. BS CECC 40203 / MIL-R-18546. 4. Gold Anodised Heat Sink. 5. PEC Resistors are RoHS compliant.
Precision Power 	P2D	3W	0R1 - 2K7	0.1%, 0.25%	Max: < 30 On Request: < 10.	<ol style="list-style-type: none"> 1. High Temp. Silicone Coating. 2. Close Tolerance, Low TCR. 3. MIL-PRF-39007 Specs. 4. Miniature Size Package. 5. PEC Resistors are RoHS compliant.
Silicone Coated Precision, Axial 	PSP	0.5W - 2W	0R1 - 100K	0.05%, 0.1% 0.5%, 1%	< 1R: < 90 1R - 99R: < 30 > 100R: < 10	<ol style="list-style-type: none"> 1. High Temp. Silicone Coating. 2. Close Tolerance, Low TCR. 3. Non Inductive Versions. 4. Low Temperature Rise. 5. High Stability. 6. Suitable for Instrumentation. 7. PEC Resistors are RoHS compliant.
Multilayer Precision Moulded Case 	PEP	0.1W - 0.75W	50R - 1M	0.01%, 0.05% 0.1%, 0.25% 0.5%, 1%	< 99R9: < 20 > 100R: < 10 On Request: < 5.	<ol style="list-style-type: none"> 1. Multilayer Precision Wound. 2. Moulded Case Protection. 3. High Stability Reference Resistor. 4. Low Inductance Winding. 5. High Resistance Values. 6. Close Tolerance upto 0.01%. 7. PEC Resistors are RoHS compliant.
Square Ceramic Low Ohmic 	PCL	4W	0R005 - 0R051	1%, 5%	From 950-160 based on Resistance Value.	<ol style="list-style-type: none"> 1. Very Low Ohmic Values. 2. Non Inductive Construction <20nH. 3. For Current Sensing / HF Circuits. 4. High Strength Weld Joints. 5. Low Temperature Rise. 6. Non Flammable Construction. 7. PEC Resistors are RoHS compliant.
Moulded Case Low Ohmic 	PML	3W, 4.5W, 5W	0R005 - 0R075	1%, 2% 5%, 10%	Varies Based on Resistance Value and Type.	<ol style="list-style-type: none"> 1. Very Low Ohmic Values. 2. Non Inductive Construction <20nH. 3. For Current Sensing / HF Circuits. 4. Epoxy Moulded Casing. 5. High Moisture Resistance. 6. High Strength Weld Joints. 7. PEC Resistors are RoHS compliant.
Capacitor Discharge Resistors 	PYP	10W, 13W	100R - 100K	5%, 10% On Request: 1%, 2%	Max: < 150 On Request: < 20.	<ol style="list-style-type: none"> 1. Direct Mounting on Capacitors. 2. High Pulse-Withstand Capability. 3. Stainless Steel Terminals. 4. Two Mounting Pitches Available. 5. Moisture Resistant Silicone Coat. 6. Superior Quality Weld Joints. 7. PEC Resistors are RoHS compliant.

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Resistor Construction	PEC Series	Power	Ohmic Range	Tol. %	TCR ppm/K	Key Features
Low Ohmic, Non-Inductive 	POR	3W, 5W	R005-R050	1%, 5%	20	<ol style="list-style-type: none"> 1. Current Shunt and Sensing. 2. Direct PCB Insertion. 3. High Quality Welded Joints. 4. PEC Resistors are RoHS compliant.
Bare Metal Element 	POF	5W	R001, R002 On Request: Other Values	5%, 10%	90	<ol style="list-style-type: none"> 1. Element Cu - Ni Alloy. 2. Inductance: < 30nH. 3. 4-Terminal for sensing. 4. PEC Resistors are RoHS compliant.
Carbon Composition Axial 	RCC	0.25W 0.5W 1.0W	2R2 - 5M6 2R2 - 20M 2R2 - 1M	5% 5% 10%		<ol style="list-style-type: none"> 1. Designed for High Pulse Loads. 2. Comparable to MIL RC07 RC20 and RC32. 3. Solid Moulded Body. 4. High Dielectric Strength. 5. PEC Resistors are RoHS compliant.
Ceramic Composition Axial 	RXY	1W 2W	3K3 - 100K 3K3 - 1M	10% 10%	-1300 ± 300	<ol style="list-style-type: none"> 1. Designed for High Pulse Loads. 2. Up to 80 Joule Pulse. 3. High Peak Power. 4. Competitively Priced. 5. PEC Resistors are RoHS compliant.
Thick Film Power 	RFP100 [ISOTOP, SOT227] RFP250	100W [200W on suitable heatsink] 250W on suitable heatsink	1R0 - 1M	10% Others on Request	100 On Request: 50	<ol style="list-style-type: none"> 1. Low Inductance. 2. Heatsink Mount. 3. Alternative to Aluminium House Types. 4. PEC Resistors are RoHS compliant.
Ceramic Thick Film SMD 	RCR	1W	0R1 - 1M	1%, 5%	100 On Request: 50	<ol style="list-style-type: none"> 1. Tape and Reeled. 2. Choice of TCR's. 3. Choice of Tolerance. 4. Low Values. 5. -55°C to +125°C. 6. PEC Resistors are RoHS compliant.
Moulded SMD 	RSP RSC High Pulse	0.6W - 3W	0R005 - 1M 2R2 - 20M	1%, 5% 10%	0R1-1R: 90 1R - 10R: 50 10R - 1K: 20 1K - 10M: 250	<ol style="list-style-type: none"> 1. UL94 - VO Moulding. 2. Low TCR. 3. 13" Reels. 4. Element goes to metal film above 1K 5. RSC is carbon comp 6. PEC Resistors are RoHS compliant.

Special Products

PSA Series



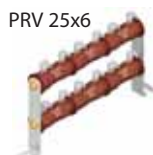
Leadless Resistor

PRA Series (Automotive)



Resistor Assembly

PRV 25x6



Resistor Assembly

PIA Series (P6V)



PCB Vertical Mount Resistor

SR 23



Audio Amplifier Resistor

RS Series – Resistive Switch



Rotary – Multiposition

GETTING BIGGER BY BEING BETTER

a resistor specialist

Custom Special Design resistors is where PEC excels.

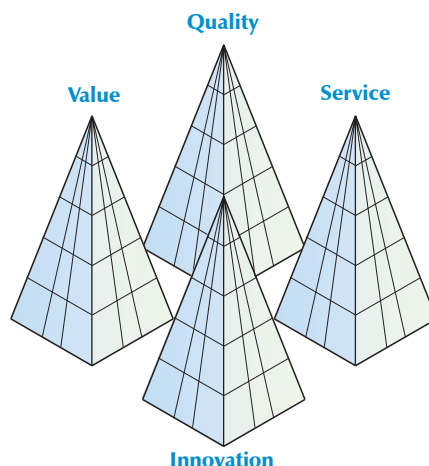
Many companies in the Pacific Rim advertise resistors. Not all manufacture, almost none have the understanding and passion that exists within PEC.

PEC clients are routinely surprised and delighted at the innovation, quality, design capability and sheer enthusiasm that PEC bring to the industry.

“Talk to us about pulse performance. That's what we do.”



*“We all need to find partners. Partners we can rely on to deliver innovation and quality. Partners who do what they say they'll do. Many companies will sell you resistors. **PEC deliver on the promise.**”*





PEC, MUCH MORE THAN MEETS THE EYE



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why not visit www.peccomponents.com

The specifications contained in this brochure are for general guidance only, as PEC products are continually improved and changes to specifications may be made from time to time.