

- Features:
- 15W up to 350A at 0.1mΩ
  - Lead-free, RoHS compliant for global applications and halogen-free
  - Excellent long term stability
  - HCC8420 is qualified to AEC-Q200

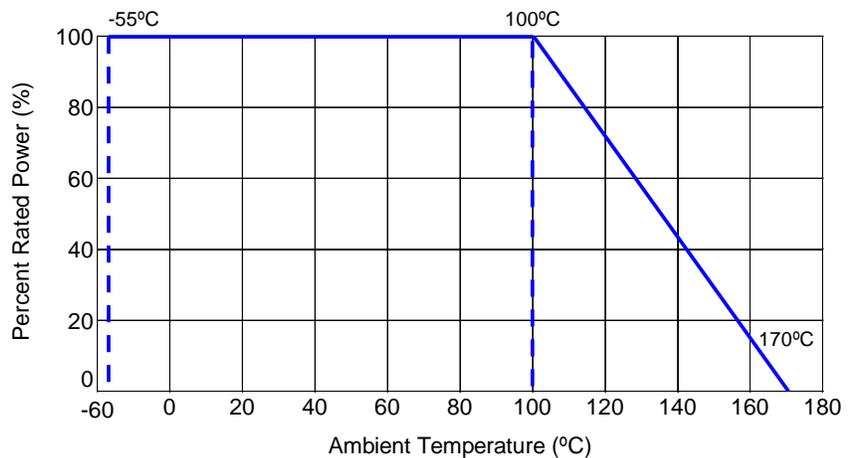


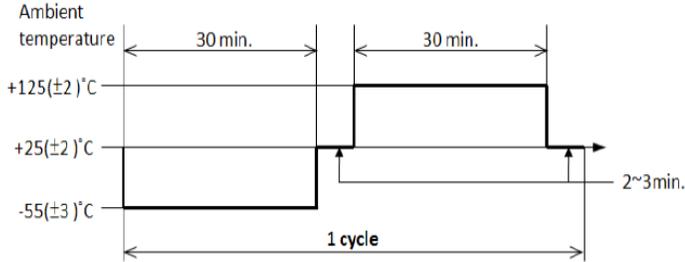
- Applications:
- Power modules
  - Frequency converters
  - Current sensor for power hybrid sources
  - High current for automotive

Electrical Specifications			
Type/Code	Power Rating	TCR (ppm/°C)	Ohmic Range (Ω) and Tolerance
HCC8420	15W	±100 ppm/°C	5% 0.0001

Mechanical Specifications										
Type/Code	A	B	C	D	E	F	G	H	I	Unit
HCC8420	0.787 ± 0.008 20.00 ± 0.20	3.307 ± 0.008 84.00 ± 0.20	0.343 ± 0.008 8.70 ± 0.20	0.118 ± 0.008 3.00 ± 0.20	2.362 ± 0.008 60.00 ± 0.20	0.709 ± 0.008 18.00 ± 0.20	0.327 ± 0.004 8.30 ± 0.10	0.079 ± 0.004 2.00 ± 0.10	0.079 ± 0.008 2.00 ± 0.20	inches mm

**Power Derating Curve:**



Environmental Performance Characteristics		
Item	Test Condition	Specification
Short Time Overload	5 times rated power for 5 seconds (JIS-C5202-5.5)	$\Delta R: \pm(1\%+0.0005\Omega)$
Temperature Coefficient of Resistance (TCR)	+25 °C / +125 °C (JIS-C5202-5.2) $TCR (ppm/^{\circ}C) = \frac{\Delta R}{R \times \Delta t} \times 10^6$	Refer to Electrical Specifications
Moisture Resistance	The specimens shall be placed in a chamber and subjected to a relative humidity of 90~98% and a temperature of 25°C/65°C, 10 cycles. (MIL-STD-202, Method 106)	$\Delta R: \pm(1\%+0.0005\Omega)$
High Temperature Exposure	The part (mounted on board) is exposed in the heat chamber, 125°C for 1000 hr. (JIS-C5202-7.2)	$\Delta R: \pm(1\%+0.0005\Omega)$
Load Life	Apply rated power at 70±2°C for 1000 hours with 1.5 hours ON and 0.5 hour OFF. (JIS-C5202-7.10)	$\Delta R: \pm(1\%+0.0005\Omega)$
Rapid Change of Temperature	The part (mounted on board) is exposed, -55±3°C (30 min) / +125±2°C (30 min) for 5 cycles. The following conditions are as the figure below. (JIS_C5202-7.4) 	$\Delta R: \pm(1\%+0.0005\Omega)$

Note: The surface temperature of component should be below 100°C.

Storage Conditions: 22~28 °C. Humidity: 40~75%

### RoHS Compliance

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union's directive regarding "Restrictions on Hazardous Substances" (RoHS 2). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament.

RoHS Compliance Status						
Standard Product Series	Description	Package / Termination Type	Standard Series RoHS Compliant	Lead-Free Termination Composition	Lead-Free Mfg. Effective Date (Std Product Series)	Lead-Free Effective Date Code (YY/WW)
HCC	High Current Chassis Mount Shunt Resistor	SMD	YES	100% Copper	Always	Always

**“Conflict Metals” Commitment**

We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the “conflict region” of the Eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

**Compliance to “REACH”**

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, “The Registration, Evaluation, Authorization and Restriction of Chemicals”, otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

**Environmental Policy**

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.

