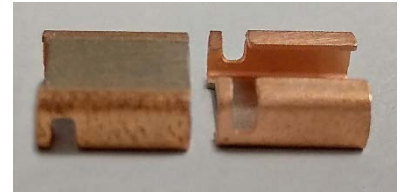


- Features:
- 5W permanent power
 - Inductance <3nH
 - Internal heat resistance 15K/W
 - RoHS compliant and halogen-free

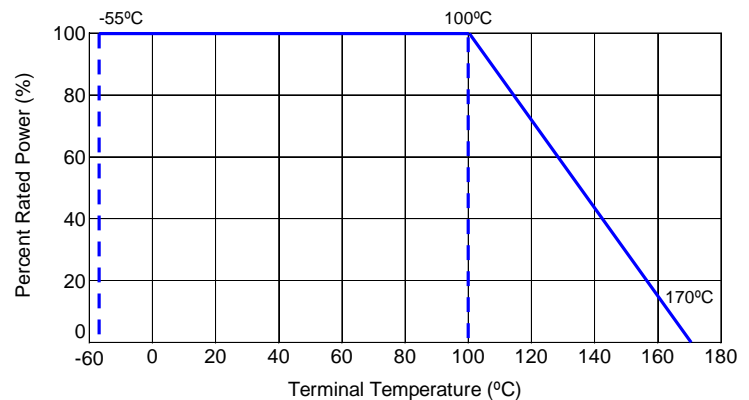


- Applications:
- Power modules
 - Frequency converters
 - Current sensor for power hybrid sources
 - High current handling for automotive engine controls and power management

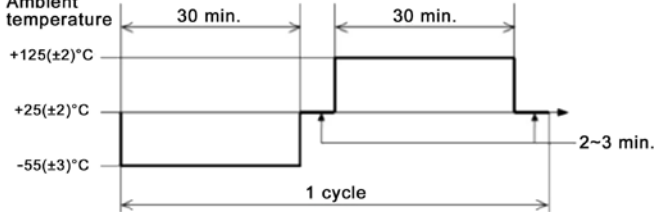
Electrical Specifications			
Type / Code	Power Rating	TCR (ppm/°C)	Ohmic Range (Ω) and Tolerance
HCSK2725	5W	±50 ppm/°C	1% and 5% 0.001

Mechanical Specifications						
Type / Code	L	B	H	E	F	Unit
HCSK2725	0.260 ± 0.010	0.272 ± 0.006	0.094 ± 0.008	0.028 ± 0.008	0.039 ± 0.008	inches
	6.60 ± 0.25	6.90 ± 0.15	2.40 ± 0.20	0.70 ± 0.20	1.00 ± 0.20	mm
	G	A	C	D1	D2	Unit
HCSK2725	0.193 ± 0.010	0.075 ± 0.008	0.122 ± 0.008	0.014 ± 0.004	0.014 ± 0.004	inches
	4.90 ± 0.25	1.90 ± 0.20	3.10 ± 0.20	0.35 ± 0.10	0.35 ± 0.10	mm

Power Derating Curve:

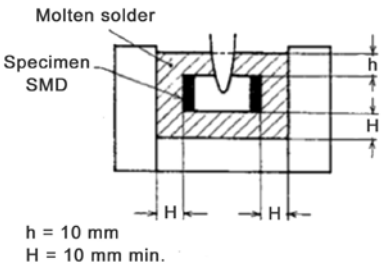


Environmental Performance Characteristics

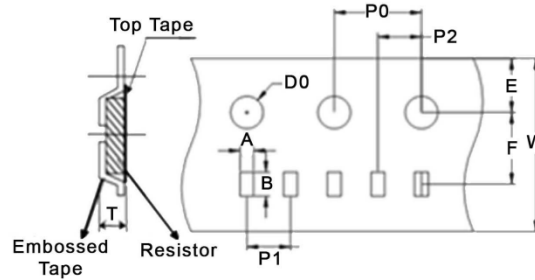
Test	Test Method	Test Specification	Test Condition
Short Time Overload	-	$\Delta R: \pm 1\%$	5 times rated power for 5 seconds.
Temperature Coefficient of Resistance (TCR)	-	Refer to Electrical Specifications	+25°C/ +125°C (JIS-C5202-5.2) $TCR \text{ (ppm/}^\circ\text{C)} = \frac{\Delta R}{R \times \Delta t} \times 10^6$
Moisture Resistance	MIL-STD-202, Method 106	$\Delta R: \pm 1\%$	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.
High Temperature Exposure	JIS-C5202-7.2	$\Delta R: \pm 1\%$	The chip (mounted on board) is exposed in the heat chamber, 125°C for 1000 hours.
Load Life	JIS-C5202-7.10	$\Delta R: \pm 1\%$	Apply rated power for 1000 hours with 1.5 hours ON and 0.5 hour OFF.
Rapid Change of Temperature	JIS-C5202-7.4	$\Delta R: \pm 1\%$	The chip (mounted on board) is exposed, -55 ± 3°C (30 min) / +125 ± 2°C (30 min) for 5 cycles. The following conditions shown in the figure below. 

Note: The terminal electron temperature of component should be below 100°C.
Storage Conditions: Temperature of 22-28°C. Humidity: 40-75%.

Function Performance Characteristics

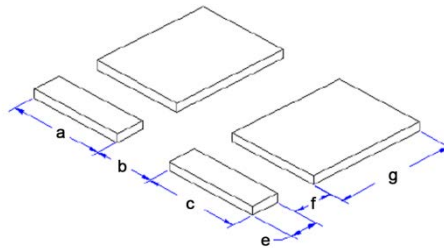
Test	Test Method	Test Specification	Test Condition
Solderability	JIS-C5202-6.11	Solder shall cover 95% or more of the electrode area.	The part shall be immersed into the flux specified in the solder bath 235°C ± 5°C for 2 seconds ± 0.5 seconds. It shall be immersed to a point 10mm from its root. (Sn96.5/Ag3.0/Cu0.5) 

Taping Specifications – Embossed Plastic Tape



Type / Code	A	B	E	F	W	Unit
HCSK2725	0.276 ± 0.004 7.00 ± 0.10	0.276 ± 0.004 7.00 ± 0.10	0.069 ± 0.004 1.75 ± 0.10	0.295 ± 0.004 7.50 ± 0.10	0.630 ± 0.008 16.00 ± 0.20	inches mm
Type / Code	P0	P1	P2	D0	T	Unit
HCSK2725	0.157 ± 0.004 4.00 ± 0.10	0.472 ± 0.004 12.00 ± 0.10	0.079 ± 0.004 2.00 ± 0.10	0.059 ± 0.004 1.50 ± 0.10	0.122 ± 0.004 3.10 ± 0.10	inches mm

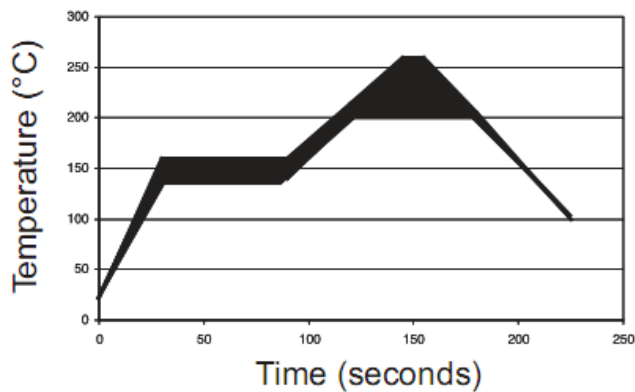
Recommended Pad Layout



Type / Code	a	b	c	e	f	g	Unit
HCSK2725	0.114 2.90	0.079 2.00	0.114 2.90	0.035 0.90	0.039 1.00	0.220 5.60	inches mm

Soldering Recommendations:

- Peak reflow temperatures and durations
 - ✓ IR Reflow Peak = 260°C max for 10 seconds
 - ✓ Not suitable for wave soldering
- Recommended IR reflow profile:



“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.

How to Order

