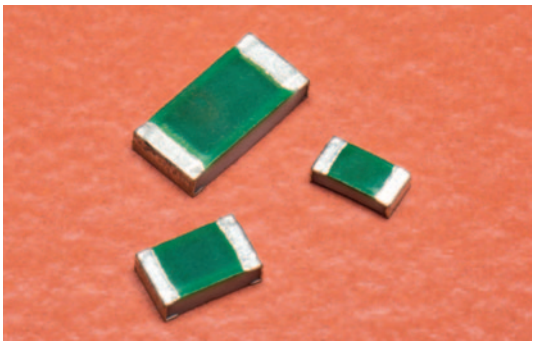
KOA SPEER ELECTRONICS, INC.

SG73G

endured pulse power flat chip resistors (ultra precision grade)

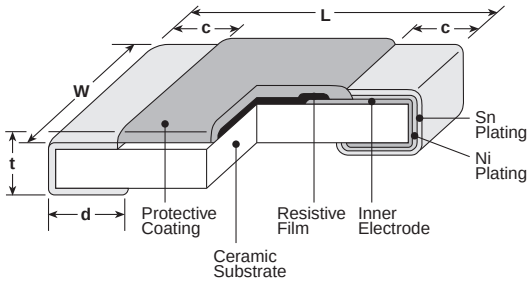
EU RoHS COMPLIANT



features

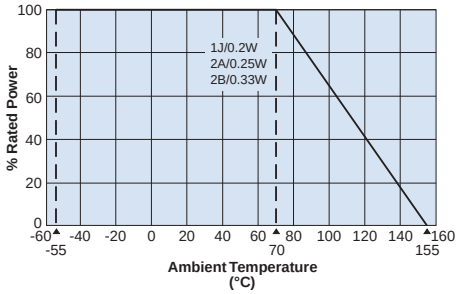
- Superior to RK73 series chip resistors in pulse withstanding voltage and high power
- High Precision resistor with T.C.R. ±50×10^{-6}/K and Tolerance ±0.25%
- Suitable for both reflow and flow solderings
- Products with lead-free terminations meet EU RoHS requirements. EU RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.
- AEC-Q200 Qualified

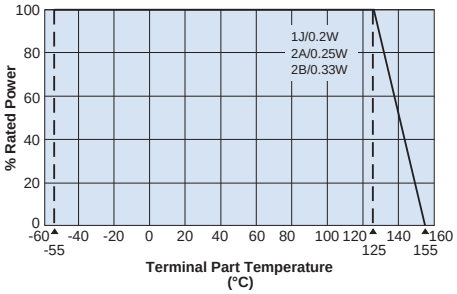
dimensions and construction

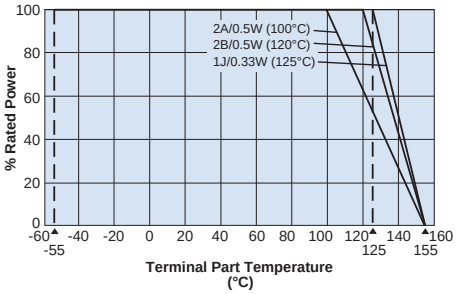


Type (Inch Size Code)	Dimensions inches (mm) L	W	c	d	t
SG73G1J (0603)	.063±.008 (1.6±0.2)	.031±.004 (0.8±0.1)	.012±.004 (0.3±0.1)	.012±.004 (0.3±0.1)	.018±.004 (0.45±0.1)
SG73G1J AT (0603)			.014±.006 (0.35±0.15)	.02±.008 (0.5±0.2)	
SG73G2A (0805)	.079±.008 (2.0±0.2)	.049±.004 (1.25±0.1)	.012 +.008 -.004 (0.3 +0.2 -0.1)	.012 +.008 -.004 (0.3 +0.2 -0.1)	.02±.004 (0.5±0.1)
SG73G2A AT (0805)			.018±.010 (0.45±0.25)	.024±.008 (0.6±0.2)	.022±.004 (0.55±0.1)
SG73G2B (1206)	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.016 +.008 -.004 (0.4 +0.2 -0.1)	.016 +.008 -.004 (0.4 +0.2 -0.1)	.024±.004 (0.6±0.1)
SG73G2B AT (1206)			.022±.014 (0.55±0.35)	.031±.008 (0.8±0.2)	

Derating Curve







For resistors operated at an ambient temperature of 70°C or above, the power rating shall be derated in accordance with the derating curve.

For resistors operated at a terminal part temperature 125°C or above, the power rating shall be derated in accordance with the derating curve.
For more details on derating click here, "*Derating Curves – Caution & Terms*."

ordering information

SG73G	2A		T	TD	1002	D
Type	**Power Rating**	**Characteristics**	**Termination Material**	**Packaging**	**Nominal Resistance**	**Tolerance**
SG73G	1J 2A 2B	Nil: Standard A: Heat shock resistance	T: Sn	TP: 2mm pitch punch paper TD: 4mm pitch punched paper TE: 4mm pitch embossed plastic For further information on packaging, please refer to Appendix A	3 significant figures + 1 multiplier "R" indicates decimal on value <100Ω	C: ±0.25% D: ±0.5%

Contact us when you have control request for environmental hazardous material other than the substance specified by EU RoHS.

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

05/05/26

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KOA SPEER ELECTRONICS, INC.

SG73G

endured pulse power flat chip resistors (ultra precision grade)

applications and ratings

Part Designation	Power Rating	Rated Ambient Temp.	Rated Terminal Part Temp.	T.C.R. (ppm/°C) Max.	Resistance Range (Ω) C±0.25%, D±0.5% E-24/E-96	Absolute Maximum Working Voltage	Absolute Maximum Overload Voltage	Operating Temp. Range
SG73G1J (0603)	0.2W	70°C	125°C	±50	10 - 1M	150V	200V	-55°C to +155°C
	0.33W*1	70°C	125°C					
SG73G2A (0805)	0.25W	70°C	125°C	±50	10 - 1M	200V	400V	
	0.5W*1	70°C	100°C					
SG73G2B (1206)	0.33W	70°C	125°C	±50	10 - 1M	200V	400V	
	0.5W*1	70°C	120°C					

Rated voltage = √Power rating x resistance value or max. working voltage, whichever is lower. If any questions should arise whether to use the "Rated Ambient Temperature" or the "Rated Terminal Part Temperature," please give priority to the "Rated Terminal Part Temperature."

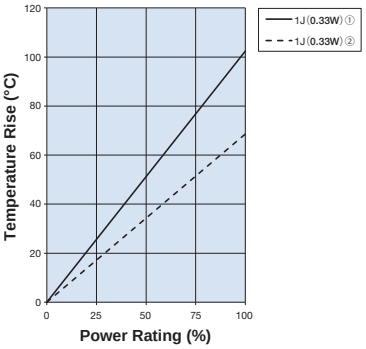
*1 If you use the rated power, please keep the terminal of the resistor below the rated terminal part temperature. Please refer to the derating curves based on the terminal temperature.

For more details on derating click here, "*Derating Curves – Caution & Terms*."

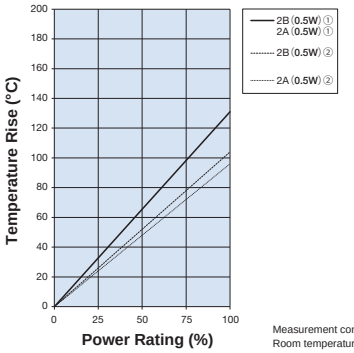
environmental applications

Temperature Rise

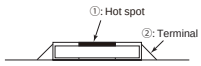
SG73G 1J



SG73G 2A-2B



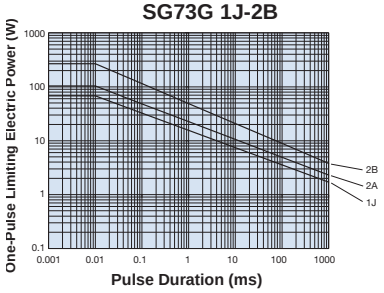
Measurement condition
Room temperature: 25°C
PCB: FR-4t = 1.6mm
Cu foil thickness: 35µm



Regarding the temperature rise, the value of the temperature varies per conditions and board for use since the temperature is measured under our measuring conditions.

One-Pulse Limiting Electric Power

SG73G 1J-2B



The maximum applicable voltage is equal to the max. overload voltage.

Please ask us about the resistance characteristic of continuous applied pulse.

Make sure to test the products in your actual design and environment.

Performance Characteristics

Parameter	Requirement Δ R ±(%+0.1Ω) Limit	Typical	Test Method
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/-55°C and +25°C/+125°C
Overload (Short time)	±2%	±0.5%	Rated Voltage x 2.5 for 5 seconds (2A: 0.5W rated voltage x 2 for 5 seconds)
Resistance to Solder Heat	±1%	±0.75%	260°C ± 5°C, 10 seconds ± 1 second
Rapid Change of Temperature	±0.5%: Characteristic (Nil) Standard ±1%: Characteristic (A) Heat Shock Resistance	±0.3%: Characteristic (Nil) Standard ±0.5%: Characteristic (A) Heat Shock Resistance	Characteristic (Nil) Standard: -55°C (30 min.)/+125°C (30 min.) 100 cycles Characteristic (A) Heat Shock Resistance: -55°C (30 min.)/+125°C (30 min.) 1000 cycles
Moisture Resistance	±2%	±0.75%	40°C ± 2°C, 90%~95%RH, 1000 hours; 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C or Rated Terminal Part Temperature	±2%	±0.75%	70°C ± 2°C or rated terminal part temperature ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±1%	±0.3%	+155°C, 1000 hours

Additional environmental applications can also be found at www.koaspeer.com

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