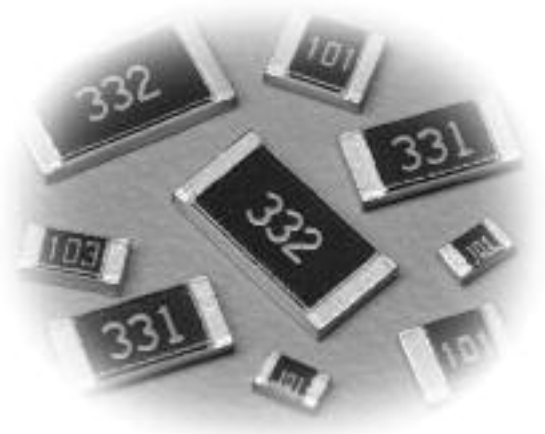
KOA SPEER ELECTRONICS, INC.

SG73-RT

surge current flat chip resistors (anti-sulfuration)

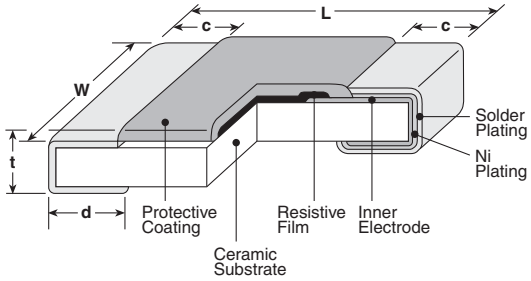
EU RoHS COMPLIANT



features

- Excellent anti-sulfuration characteristic due to using high sulfuration-proof inner top electrode material/pulse
- Superior to RK73 series chip resistors in pulse withstanding voltage
- Marking: White three-digit on wine red protective coat
- 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
	SG73 1J (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)
	SG73 2A (0805)	.079±.008 (2.0±0.2)	.049±.004 (1.25±0.1)	.016±.008 (0.4±0.2)	.012 +.008 -.004 (0.3 +0.2 -0.1)	.02±.004 (0.5±0.1)
	SG73 2B (1206)	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.02±.012 (0.5±0.3)	.016 +.008 -.004 (0.4 +0.2 -0.1)	.024±.004 (0.6±0.1)
	SG73 2E (1210)		.102±.008 (2.6±0.2)			
	SG73 W2H (2010)	.197±.008 (5.0±0.2)	.098±.008 (2.5±0.2)		.026±.006 (0.65±0.15)	
	SG73 W3A (2512)	.248±.008 (6.3±0.2)	.122±.008 (3.1±0.2)			
NEW	SG73S 1E, SG73P 1E (0402)	.039 +.004 -.002 (1.0 +0.1 -0.05)	.020±.002 (0.5±0.05)	.006±.004 (0.15±0.1)	.010 +.002 -.004 (0.25 +0.05 -0.1)	.014±.002 (0.35±0.05)
NEW	SG73S 1J, SG73P 1J (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)
NEW	SG73S 2A, SG73P 2A (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)	.020±.004 (0.5±0.1)
NEW	SG73S 2B, SG73P 2B (1205)	.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)
NEW	SG73S 2E, SG73P 2E (1210)		.102±.008 (2.6±0.2)			

ordering information

New Part #

SG73	2A	RT	TD	103	K
Type	**Power Rating**	**Termination Material**	**Packaging**	**Nominal Resistance**	**Resistance Tolerance**
SG73 NEW SG73P NEW SG73S	1E 1J 2A 2B 2E W2H W3A	RT: Sn Anti-Sulfur	TP: 0402, 0603, 0805: 7" 2mm pitch punch paper TD: 0603, 0805, 1206, 1210: 7" 4mm pitch punched paper TDD: 0603, 0805, 1206, 1210: 10" paper tape TE: 0805, 1206, 1210, 2010 & 2512: 7" embossed plastic TED: 0805, 1206, 1210, 2010 & 2512: 10" embossed plastic For further information on packaging, please refer to Appendix A	±0.5%, ±1%: 3 significant figures + 1 multiplier ±2%, ±5%, ±10%, ±20%: 2 significant figures + 1 multiplier "R" indicates decimal on value <10Ω	D: ±0.5% F: ±1% G: ±2% J: ±5% K: ±10% M: ±20%

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applications and ratings

	Part Designation	Power Rating	T.C.R. (ppm/°C) Max.	Resistance Range D: ±0.5% E-24, E-96	F: ±1% E-24, E-96	G: ±2% E-24	J: ±5% E-24	K: ±10% M: ±20% E-12	Maximum Working Voltage	Maximum Overload Voltage	Rated Terminal Part Temp.	Operating Temp. Range
	SG73 1J (0603)	0.1W	±400	—	—	—	—	1Ω - 8.2Ω	50V	100V	80°C	-55°C to +155°C
			±200					10Ω - 1MΩ				
	SG73 2A (0805)	0.125W	±400					1Ω - 8.2Ω	150V	200V	85°C	
			±200					10Ω - 1MΩ				
	SG73 2B (1206)	0.25W	±400					1Ω - 8.2Ω	200V	400V	100°C	
			±200					10Ω - 1MΩ				
	SG73 2E (1210)	0.33W	±400					1Ω - 8.2Ω				
			±200					10Ω - 1MΩ				
	SG73 W2H (2010)	0.75W	±400					1Ω - 8.2Ω			125°C	
			±200					10Ω - 1MΩ				
	SG73 W3A (2512)	1W	±400					1Ω - 8.2Ω				
			±200					10Ω - 1MΩ				
NEW	SG73S 1E SG73P 1E	0.125W (0.2W*)	±200	100Ω - 1MΩ	10Ω - 1MΩ	10Ω - 10MΩ	1Ω - 10MΩ	—	50V	100V	85°C	
NEW	SG73S 1J SG73P 1J	0.2W (0.25W*)	±100**								95°C	
NEW	SG73S 2A SG73P 2A	0.25W (0.33W*)	±200						150V (*200V)	200V (*400V)	100°C	
NEW	SG73S 2B SG73P 2B	0.33W (0.5W*)							200V	400V		
NEW	SG73S 2E SG73P 2E	0.5W									110°C	

* Please refer to the "Higher Power Ratings" statement in the beginning of the catalog. Also, contact KOA prior to usage and for the max. working voltage and max. overload voltage.

** Cold T.C.R. of SG73P/S 1J is ±150x10⁻⁶/K

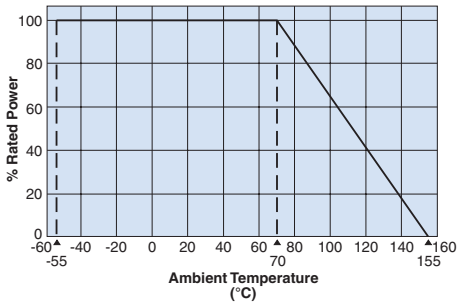
Rated ambient temperature: +70°C

Rated voltage = $\sqrt{\text{Power rating x resistance value}}$ or max. working voltage, whichever is lower

environmental applications

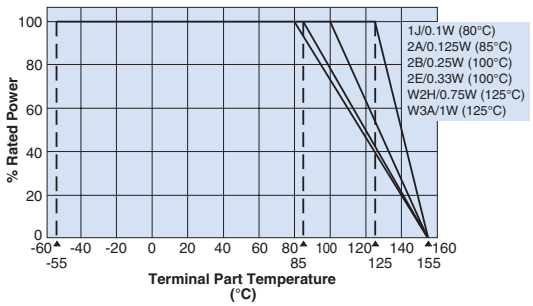
Derating Curve

SG73, SG73P, SG73S

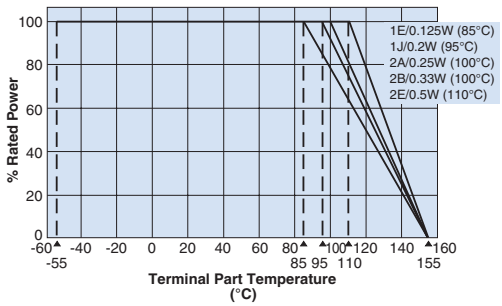


For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the derating curve.

SG73



SG73P, SG73S



For resistors operated at a terminal part temperature of described for each size or above, a power rating shall be derated in accordance with the derating curve.

Please refer to "Introduction of the derating curve based on the terminal part temperature" on the beginning of our catalog before use.

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

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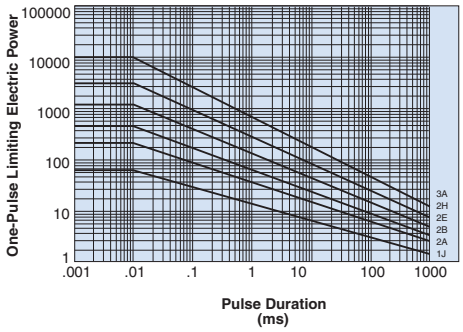
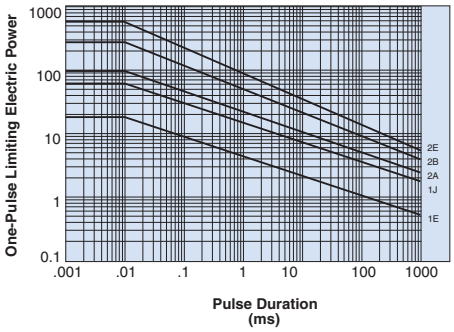
environmental applications

One-Pulse Limiting Electric Power

SG73

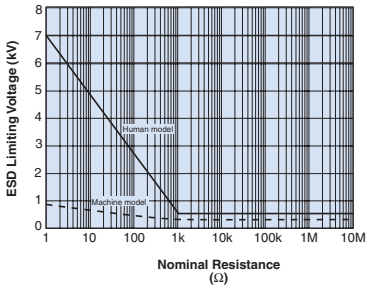


SG73P

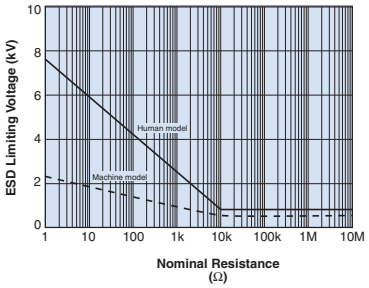


ESD Limiting Voltage

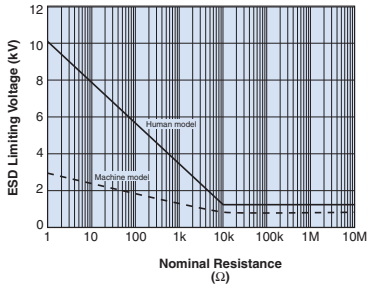
SG73S 1E



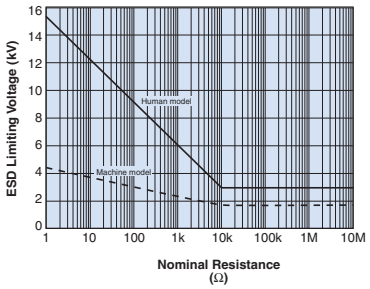
SG73S 1J



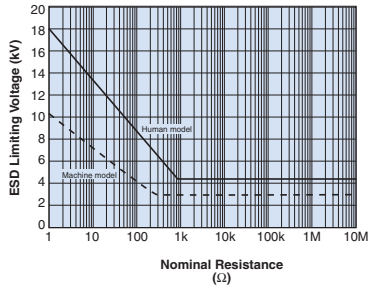
SG73S 2A



SG73S 2B



SG73S 2E



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
Resistance to Solder Heat	±1%	±0.75%	260°C ± 5°C, 10 seconds ± 1 second
Rapid Change of Temperature	±0.5%	±0.3%	-55°C (30 minutes), +125°C (30 minutes), 100 cycles
Moisture Resistance	±3%	±0.75%	40°C ± 2°C, 90%~95%RH, 1000 hours; 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±3%	±0.75%	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±1%	±0.3%	+155°C, 1000 hours
Sulfuration Test	±5%	—	Soaked in industrial oil with 3.5% sulfur concentration 105°C ± 3°C, 500 hours

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Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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