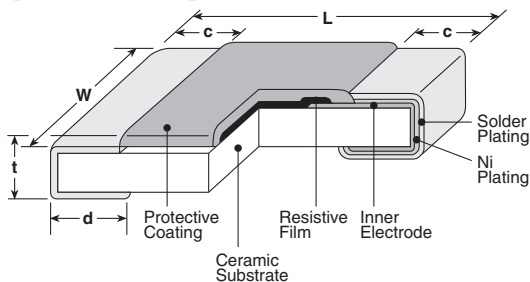


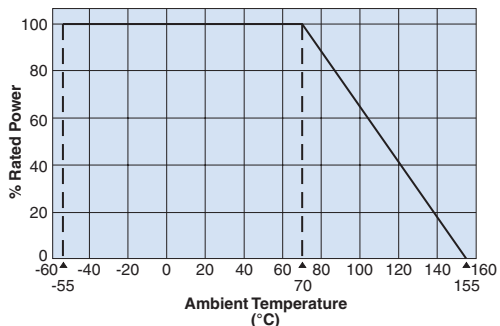
features

- Superior to RK73B/RK73H series in surge dielectric withstanding voltage
- Marking: SG73: White three-digit on wine red protective coat
SG73P: Black three-digit on green protective coating
SG73S: White three-digit on green protective coating
SG73P/S 1E, 1J: no marking
SG73P/S 1E: Black coating
- 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: 0402(1E), 0603(1J), 0805(2A), 1206(2B), 1210(2E), 2010(2H/W2H), 2512(3A/W3A)

dimensions and construction



Derating Curve



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

ordering information

New Part #	SG73	2B	T	TD	102	K
Type	SG73 SG73P SG73S	Size NEW 1E 1J 2A 2B 2E W2H W3A 2H 3A	Termination Material T: Sn L: SnPb: (NOT available in SG732H/W2H, SG733A/W3A, SG73P series, SG73S series)	Packaging 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	Nominal Resistance ±0.5%, ±1%: 3 significant figures + 1 multiplier "R" indicates decimal on value <100Ω ±2%, ±5%, ±10%, ±20%: 2 significant figures + 1 multiplier "R" indicates decimal on value <10Ω	Tolerance D: ±0.5% F: ±1% G: ±2% J: ±5% K: ±10% M: ±20%

Type (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
NEW SG73P1E, SG73S1E (0402)	.039 ^{+0.004} _{-.002} (1.0 ^{+0.1} _{-0.05})	.02±.002 (0.5±0.05)	.006±.004 (0.15±0.1)	.010 ^{+0.002} _{-.004} (0.25 ^{+0.05} _{-0.1})	.014±.002 (0.35±0.05)
SG731J,SG73P1J SG73S1J (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)
SG732A (0805)	.079±.008 (2.0±0.2)	.049±.004 (1.25±0.1)	.016±.008 (0.4±0.2)	.012 ^{+0.008} _{-.004} (0.3 ^{+0.2} _{-0.1})	.02±.004 (0.5±0.1)
SG73P2A, SG73S2A (0805)			.012 ^{+0.008} _{-.004} (0.3 ^{+0.2} _{-0.1})		
SG732B (1206)	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.02±.012 (0.5±0.3)	.016 ^{+0.008} _{-.004} (0.4 ^{+0.2} _{-0.1})	.024±.004 (0.6±0.1)
SG73P2B, SG73S2B (1206)			.016 ^{+0.008} _{-.004} (0.4 ^{+0.2} _{-0.1})		
SG732E (1210)			.02±.012 (0.5±0.3)		
SG73P2E, SG73S2E (1210)			.016 ^{+0.008} _{-.004} (0.4 ^{+0.2} _{-0.1})		
SG732H (2010)	.197±.008 (5.0±0.2)	.098±.008 (2.5±0.2)	.02±.012 (0.5±0.3)	.026±.006 (0.65±0.15)	
SG73W2H (2010)					
SG733A (2512)	.248±.008 (6.3±0.2)	.122±.008 (3.1±0.2)		.016 ^{+0.008} _{-.004} (0.4 ^{+0.2} _{-0.1})	
SG73W3A (2512)				.026±.006 (0.65±0.15)	

applications and ratings

	Part Designation	Power Rating @ 70°C	T.C.R. (ppm/°C) Max.	Resistance Range			Absolute Maximum Working Voltage	Absolute Maximum Overload Voltage	Operating Temp. Range	
				(E-24)/E-96 (D±0.5%)	(E-24)/E-96 (F±1%)	(E-24) (G±2%,J±5%)				(E-12) (K±10%,M±20%)
NEW	SG731J (0603)	1/10W (.1W)	±200	—	—	—	10Ω - 1MΩ	50V	100V	-55°C to +155°C
			±400				1Ω - 8.2Ω			
	SG732A (0805)	1/8W (.125W)	±200	—	—	—	10Ω - 1MΩ	150V	200V	
			±400				1Ω - 8.2Ω			
	SG732B (1206)	1/4W (.25W)	±200	—	—	—	10Ω - 1MΩ	200V	400V	
			±400				1Ω - 8.2Ω			
	SG732E (1210)	1/3W (.33W)	±200	10Ω - 1MΩ						
			±400	1Ω - 8.2Ω						
	SG732H/W2H (2010)	3/4W (.75W)	±200	10Ω - 1MΩ						
			±400	1Ω - 8.2Ω						
	SG733A/W3A (2512)	1W	±200	10Ω - 1MΩ						
			±400	1Ω - 8.2Ω						
	SG73P1E, SG73S1E (0402)	1/8W (.125W)	±200	10Ω - 1MΩ	1Ω - 1MΩ	1Ω - 10MΩ	—	50V	100V	
SG73P1J, SG73S1J (0603)	1/5W (.2W)	±100**								
SG73S2A, SG73P2A (0805)	1/4W (.25W)	±200	10Ω - 1MΩ	1Ω - 1MΩ	1Ω - 10MΩ	—	150V (200V)***	200V (400V)***		
SG73S2B, SG73P2B (1206)	1/3W (.33W)	±200	10Ω - 1MΩ	1Ω - 1MΩ	1Ω - 10MΩ	—	200V	400V		
SG73S2E, SG73P2E (1210)	1/2W (.5W)	±200	10Ω - 1MΩ	1Ω - 1MΩ	1Ω - 10MΩ	—				

* Parentheses indicate EIA package size codes.

** Cold T.C.R.: +150 x 10⁻⁶/K

*** Please consult with factory for Max. working voltage and Max. overload voltage with ()

environmental applications

Performance Characteristics

Parameter	Requirement Δ R ±(%+01Ω)		Test Method
	Limit	Typical	
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

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

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

12/10/13