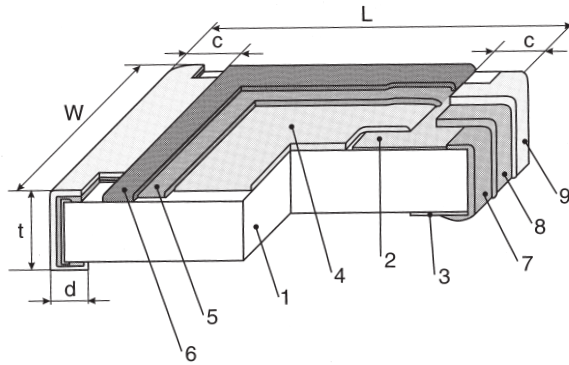
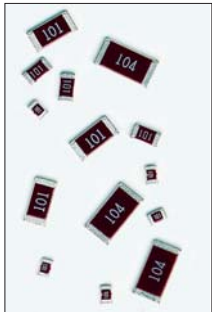


## FLAT CHIP SURGE CURRENT THICK FILM SG73 • SG73S • SG73P

**NEW**

**NEW**



### STRUCTURE

- 1 Ceramic substrate
- 2 Top termination (Ag Pd)
- 3 Bottom termination (Ag)
- 4 Resistive layer
- 5 Glass layer
- 6 Protective layer
- 7 End termination
- 8 Diffusion barrier (Ni)
- 9 Solder plating

### IDENTIFICATION

PRODUCT CODE	COATING COLOR	MARKING
SG73	Wine red	White, 3 digits
SG73S	Green	White, 3 digits
SG73P	Green	Black, 3 digits

Products with Pb-free terminations meet RoHS requirements

### TYPE DESIGNATION (HOW TO ORDER)

Old Part No.	<b>SG73</b>	<b>2A</b>	<b>K</b>		<b>TD</b>	<b>10K</b>	
New Part No. (Pb-free)	<b>SG73</b>	<b>2A</b>		<b>T</b>	<b>TD</b>	<b>103</b>	<b>K</b>
	PRODUCT CODE	STYLE	TOLERANCE	TERMINATION SURFACE MATERIAL	TAPING*	NOMINAL RESISTANCE	TOLERANCE
	SG73 SG73S SG73P	1J...W3A		T: Sn L: Sn/Pb	*Please see "PACKAGING"	D,F: 4 digits G,J,K,M: 3 digits	D: ±0.5% F: ±1% G: ±2% J: ±5% K: ±10% M: ±20%

### FEATURES

- RuO<sub>2</sub> thick film resistor element
- Anti-leaching nickel barrier terminations
- Superior to chip resistor of RK73 series in surge withstanding voltage and pulse withstanding voltage
- If tight tolerances (down to ±0.5%) are requested, the SG73S (for surge) and the SP73P (for pulse) are ideal
- Ideal for use in E.C.U's and in circuits to catch inductive lightning surge
- Rated ambient temperature: +70° C
- Operating temperature range: -55° C ... +155° C
- Meets or exceeds IEC 60 115-8, JIS C 5201-8, EIAJ RC-2134A
- Suitable for reflow and wave soldering

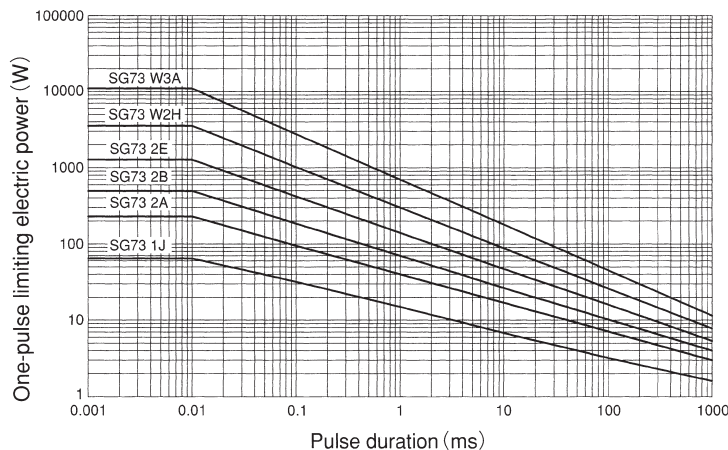
### DIMENSIONS (mm)

SIZE	TYPE	L ±0.2	W	c	d	t ±0.1
0603	SG73 1J	1.6	0.8 ± 0.1	0.3 ± 0.1	0.3 ± 0.1	0.45
0805	SG73 2A	2.0	1.25 ± 0.1	0.4 ± 0.2	0.3 <sup>+0.2</sup> / <sub>-0.1</sub>	0.5
1206	SG73 2B	3.2	1.6 ± 0.2	0.5 ± 0.3	0.4 <sup>+0.2</sup> / <sub>-0.1</sub>	0.6
1210	SG73 2E	5.0	2.6 ± 0.2		0.65 ± 0.15	
2010	SG73 W2H	5.0	2.5 ± 0.2			
2512	SG73 W3A	6.3	3.1 ± 0.2			
0805	<b>NEW</b> SG73S 2A	2.0	1.25 ± 0.1	0.3 <sup>+0.2</sup> / <sub>-0.1</sub>	0.3 <sup>+0.2</sup> / <sub>-0.1</sub>	0.5
	SG73P 2A					
1206	<b>NEW</b> SG73S 2B	3.2	1.6 ± 0.2	0.4 <sup>+0.2</sup> / <sub>-0.1</sub>	0.4 <sup>+0.2</sup> / <sub>-0.1</sub>	0.6
	SG73P 2B					
1210	<b>NEW</b> SG73S 2E	5.0	2.6 ± 0.2			
	SG73P 2E					

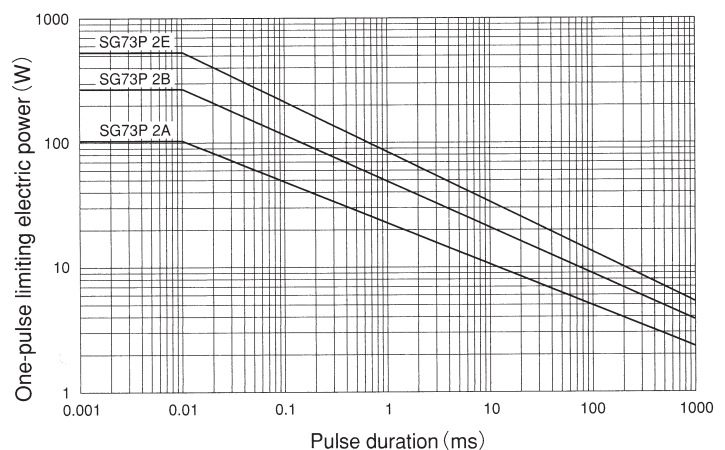
\* SG73 2H and SG73 3A are also still available (different "d" dimensions = 0.4 <sup>+0.2</sup>/<sub>-0.1</sub> mm)

### ONE-PULSE LIMITING ELECTRIC POWER

#### SG73



#### SG73P



**FLAT CHIP**

**SURGE CURRENT THICK FILM**  
**SG73 • SG73S • SG73P**

**NEW**

**NEW**

**RATING**

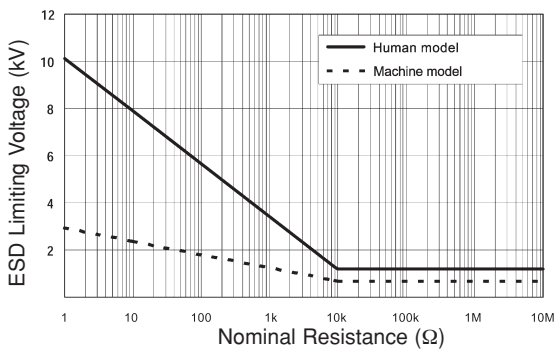
SIZE	TYPE	T.C.R. (ppm/K)	POWER* RATING	MAX. WORKING VOLTAGE	MAX. OVERLOAD VOLTAGE	RESISTANCE RANGE				OPERATING TEMPERATURE RANGE
						D (± 0.5%) E24	F (± 1%) E24	G (± 2%), J (± 5%) E24	K (± 10%), M (± 20%) E12	
0603	<b>SG73 1J</b>	± 400 ± 200	0.1 W	50 V	100 V	-	-	-	1 Ω ... 8.2 Ω 10 Ω ... 1 MΩ	-55°C ... +155°C
0805	<b>SG73 2A</b>	± 400 ± 200	0.125 W	150 V	200 V	-	-	-	1 Ω ... 8.2 Ω 10 Ω ... 1 MΩ	
1206	<b>SG73 2B</b>	± 400 ± 200	0.25 W	200 V	400 V	-	-	-	1 Ω ... 8.2 Ω 10 Ω ... 1 MΩ	
1210	<b>SG73 2E</b>	± 400 ± 200	0.5 W 0.33 W			-	-	-	1 Ω ... 8.2 Ω 10 Ω ... 1 kΩ	
2010	<b>SG73 W2H</b>	± 400 ± 200	0.75 W			-	-	-	1 Ω ... 8.2 Ω 10 Ω ... 1 MΩ	
2512	<b>SG73 W3A</b>	± 400 ± 200	1 W	-	-	-	-	1 Ω ... 8.2 Ω 10 Ω ... 1 MΩ		
<b>NEW</b> 0805	<b>SG73S 2A</b> <b>SG73P 2A</b>	± 200	0.25 W	150 V	200 V	10Ω ... 1 MΩ	1 Ω ... 1 MΩ	1 Ω ... 10 MΩ	-	
<b>NEW</b> 1206	<b>SG73S 2B</b> <b>SG73P 2B</b>		0.33 W	200 V	400 V					
<b>NEW</b> 1210	<b>SG73S 2E</b> <b>SG73P 2E</b>		0.5 W							

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

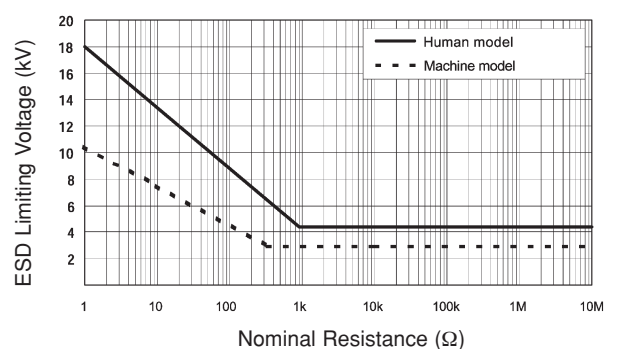
\* For resistors operated in ambient temperature over +70°C, power rating shall be derated like shown in below „DERATING CURVE“.

**ESD LIMITING VOLTAGE AND DERATING CURVE**

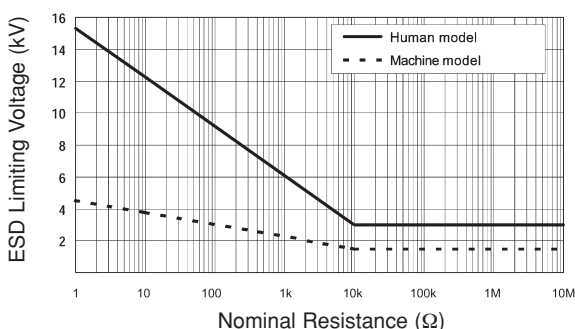
**SG73S 2A**



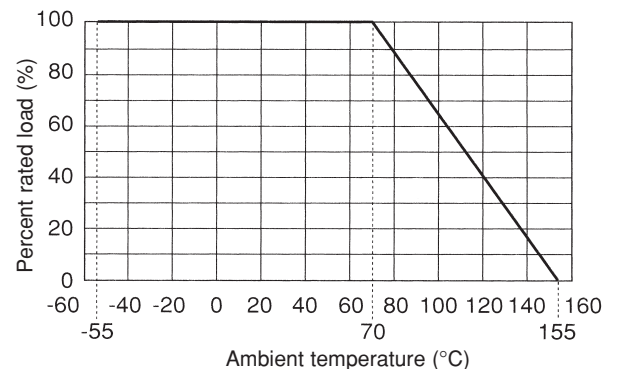
**SG73S 2E**



**SG73S 2B**



**DERATING CURVE**



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