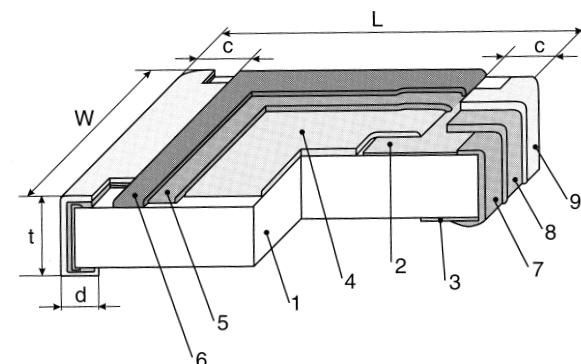
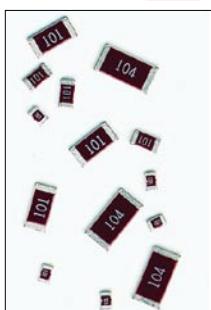


# FLAT CHIP SURGE CURRENT THICK FILM SG73 • SG73S • SG73P

NEW

NEW


**IDENTIFICATION**

PRODUCT CODE	COATING COLOR	MARKING
SG73	Wine red	White, 3 digits
SG73P 1J		None
SG73S, 2A, 2B, 2E	Green	White, 3 digits
SG73P, 2A, 2B, 2E		Black, 3 digits

**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

Products with Pb-free terminations  
meet RoHS requirements

**TYPE DESIGNATION (HOW TO ORDER)**

SG73	2A	T	TD	103	K
PRODUCT CODE	STYLE	TERMINATION			
SG73	1J...W3A	SURFACE MATERIAL			
SG73S		T: Sn			
SG73P		L: Sn/Pb			
			TAPING*	NOMINAL RESISTANCE	TOLERANCE
			TP, TD, TE	D, F: 4 digits	D: $\pm 0.5\%$
			BK, BC	G, J, K, M: 3 digits	F: $\pm 1\%$
					G: $\pm 2\%$
					J: $\pm 5\%$
					K: $\pm 10\%$
					M: $\pm 20\%$

\*Please see "PACKAGING"

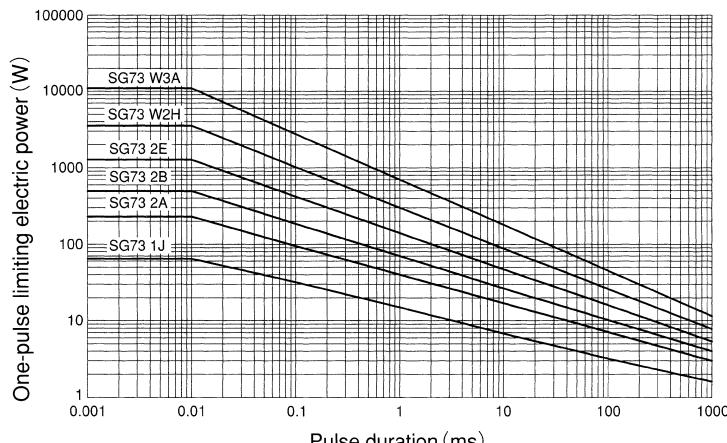
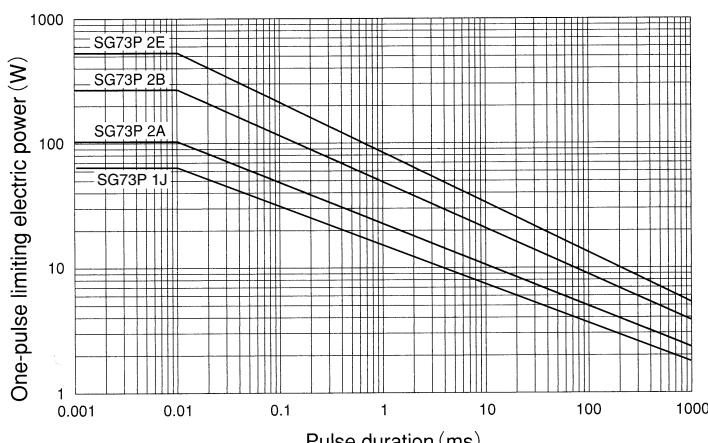
**FEATURES**

- RuO<sub>2</sub> thick film resistor element
- Anti-leaching nickel barrier terminations
- Superior to chip resistor of RK73 series in surge withstand voltage and pulse withstand voltage
- If tight tolerances (down to  $\pm 0.5\%$ ) are requested, the **SG73S (for surge)** and the **SG73P (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 $\pm 0.2$	W	c	d	t $\pm 0.1$
0603	SG73 1J	1.6	0.8 $\pm 0.1$	0.3 $\pm 0.1$	0.3 $\pm 0.1$	0.45
0805	SG73 2A	2.0	1.25 $\pm 0.1$	0.4 $\pm 0.2$	0.3 $^{+0.2}_{-0.1}$	0.5
1206	SG73 2B	3.2	1.6 $\pm 0.2$			
1210	SG73 2E	3.2	2.6 $\pm 0.2$	0.5 $\pm 0.3$	0.4 $^{+0.2}_{-0.1}$	0.6
2010	SG73 W2H*	5.0	2.5 $\pm 0.2$			
2512	SG73 W3A*	6.3	3.1 $\pm 0.2$		0.65 $\pm 0.15$	
0603	SG73P 1J	1.6	0.8 $\pm 0.1$	0.3 $\pm 0.1$	0.3 $\pm 0.1$	0.45
0805	SG73S 2A	2.0	1.25 $\pm 0.1$	0.3 $^{+0.2}_{-0.1}$	0.3 $^{+0.2}_{-0.1}$	0.5
1206	SG73S 2B		1.6 $\pm 0.2$			
1210	SG73P 2B		3.2	0.4 $^{+0.2}_{-0.1}$	0.4 $^{+0.2}_{-0.1}$	0.6
	SG73S 2E		2.6 $\pm 0.2$			
	SG73P 2E					

\* SG73 2H and SG73 3A are also still available (different "d" dimensions =  $0.4^{+0.2}_{-0.1}$  mm)

**ONE-PULSE LIMITING ELECTRIC POWER**
**SG73**

**SG73P**


## FLAT CHIP

### SURGE CURRENT THICK FILM

SG73 • SG73S • SG73P

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#### RATING

SIZE	TYPE	T.C.R. (ppm/K)	POWER* RATING	MAX. WORKING VOLTAGE	MAX. OVERLOAD VOLTAGE	RESISTANCE RANGE				OPERATING TEMPERATURE RANGE
						D ( $\pm 0.5\%$ ) E24	F ( $\pm 1\%$ ) E24	G ( $\pm 2\%$ ), J ( $\pm 5\%$ ) E24	K ( $\pm 10\%$ ), M ( $\pm 20\%$ ) E12	
0603	<b>SG73 1J</b>	$\pm 400$	0.1 W	50 V	100 V	—	—	—	1 $\Omega$ ... 8.2 $\Omega$ 10 $\Omega$ ... 1 M $\Omega$	-55°C ... +155°C
		$\pm 200$								
0805	<b>SG73 2A</b>	$\pm 400$	0.125 W	150 V	200 V	—	—	—	1 $\Omega$ ... 8.2 $\Omega$ 10 $\Omega$ ... 1 M $\Omega$	-55°C ... +155°C
		$\pm 200$								
1206	<b>SG73 2B</b>	$\pm 400$	0.25 W	200 V	400 V	—	—	—	1 $\Omega$ ... 8.2 $\Omega$ 10 $\Omega$ ... 1 M $\Omega$	-55°C ... +155°C
		$\pm 200$								
1210	<b>SG73 2E</b>	$\pm 400$	0.5 W	200 V	400 V	—	—	—	1 $\Omega$ ... 8.2 $\Omega$ 10 $\Omega$ ... 1 k $\Omega$ 1.2 k $\Omega$ ... 1 M $\Omega$	-55°C ... +155°C
		$\pm 200$								
2010	<b>SG73 W2H</b>	$\pm 400$	0.75 W	200 V	400 V	—	—	—	1 $\Omega$ ... 8.2 $\Omega$ 10 $\Omega$ ... 1 M $\Omega$	-55°C ... +155°C
		$\pm 200$								
2512	<b>SG73 W3A</b>	$\pm 400$	1 W	200 V	400 V	—	—	—	1 $\Omega$ ... 8.2 $\Omega$ 10 $\Omega$ ... 1 M $\Omega$	-55°C ... +155°C
		$\pm 200$								
<b>NEW</b> 0603	<b>SG73P 1J</b>		0.125 W	50 V	100 V					
<b>NEW</b> 0805	<b>SG73S 2A</b>		0.25 W	150 V	200 V					
	<b>SG73P 2A</b>									
<b>NEW</b> 1206	<b>SG73S 2B</b>	$\pm 200$	0.33 W	200 V	400 V	10 $\Omega$ ... 1 M $\Omega$	1 $\Omega$ ... 1 M $\Omega$	1 $\Omega$ ... 10 M $\Omega$		
<b>NEW</b> 1210	<b>SG73P 2B</b>									
	<b>SG73S 2E</b>									
	<b>SG73P 2E</b>		0.5 W							

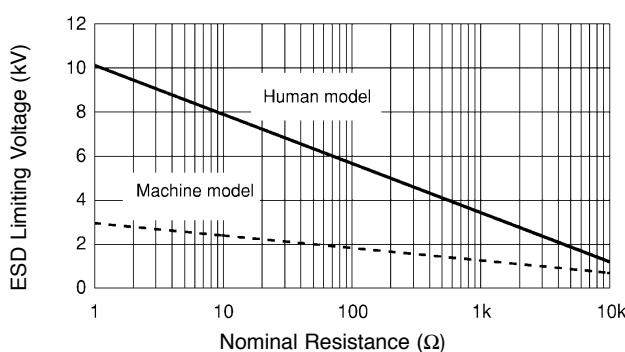
Specifications given herein may be changed at any time without notice and without obligation. Please confirm technical specification before you use.

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

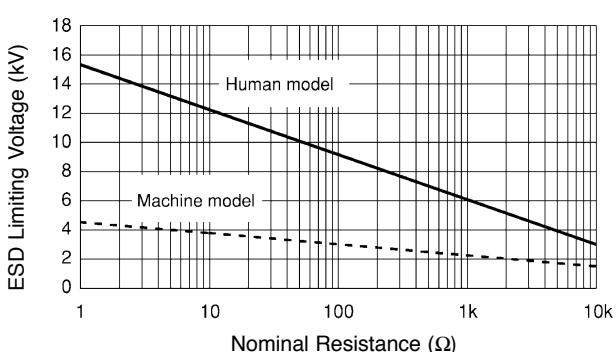
\* For resistors operated in ambient temperature over +70°C, power rating shall be derated like shown in below „DERATING CURVE“.

#### ESD LIMITING VOLTAGE AND DERATING CURVE

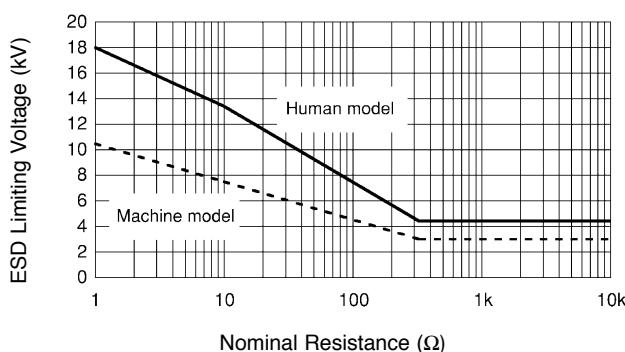
##### SG73S 2A



##### SG73S 2B



##### SG73S 2E



##### DERATING CURVE

