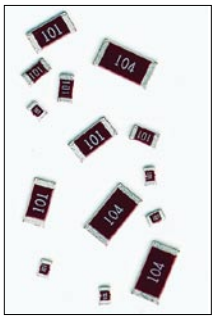
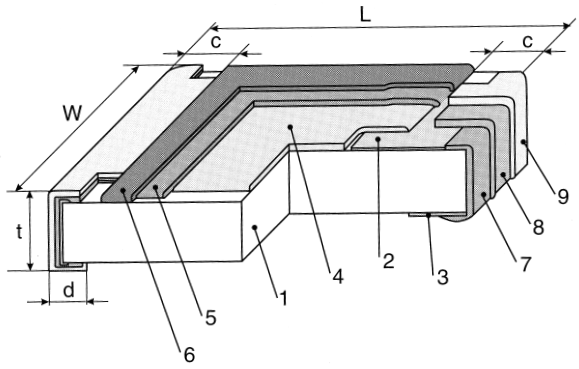
FLAT CHIP
SURGE CURRENT THICK FILM
SG73 • SG73S • SG73P

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
SG73P 1J	Green	None
SG73S, 2A, 2B, 2E		White, 3 digits
SG73P, 2A, 2B, 2E		Black, 3 digits

Products with Pb-free terminations meet RoHS requirements

TYPE DESIGNATION (HOW TO ORDER)

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

FEATURES

- RuO_2 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 **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

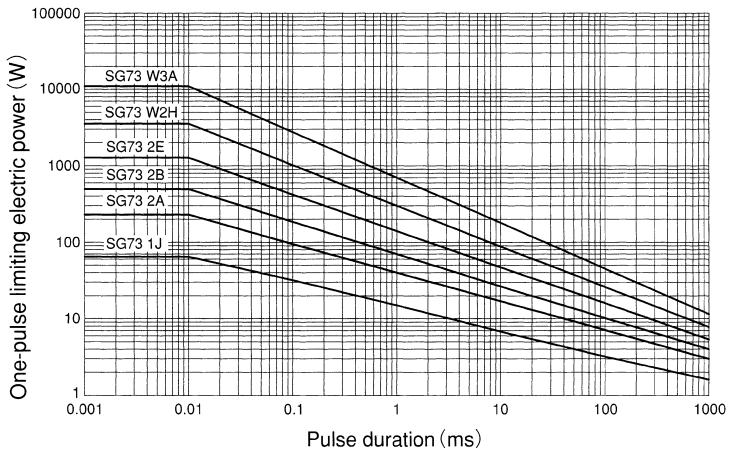
DIMENSIONS (mm)

SIZE	TYPE	L ±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	$0.3^{+0.2}_{-0.1}$	0.5
1206	SG73 2B	3.2	1.6 ± 0.2	0.5 ± 0.3	$0.4^{+0.2}_{-0.1}$	0.6
1210	SG73 2E		2.6 ± 0.2			
2010	SG73 W2H*	5.0	2.5 ± 0.2		0.65 ± 0.15	
2512	SG73 W3A*	6.3	3.1 ± 0.2			
0603 NEW	SG73P 1J	1.6	0.8 ± 0.1	0.3 ± 0.1	0.3 ± 0.1	0.45
0805 NEW	SG73S 2A SG73P 2A	2.0	1.25 ± 0.1	$0.3^{+0.2}_{-0.1}$	$0.3^{+0.2}_{-0.1}$	0.5
1206 NEW	SG73S 2B SG73P 2B	3.2	1.6 ± 0.2	$0.4^{+0.2}_{-0.1}$	$0.4^{+0.2}_{-0.1}$	0.6
1210 NEW	SG73S 2E SG73P 2E		2.6 ± 0.2			

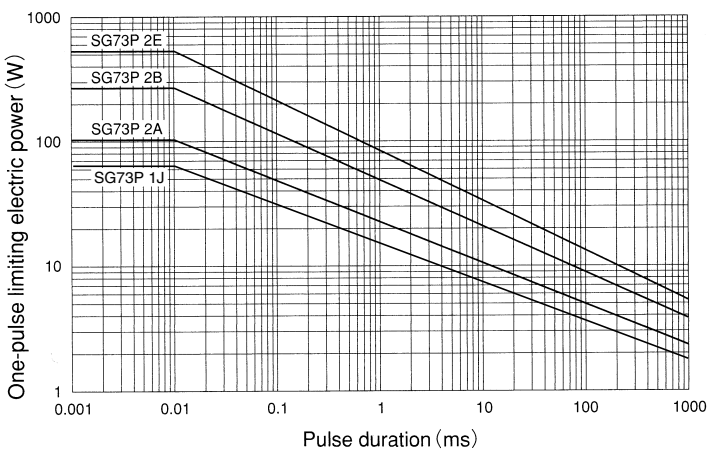
* SG73 2H and SG73 3A are also still available (different "d" dimensions = $0.4^{+0.2}_{-0.1}$ mm)

ONE-PULSE LIMITING ELECTRIC POWER

SG73



SG73P



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RATING

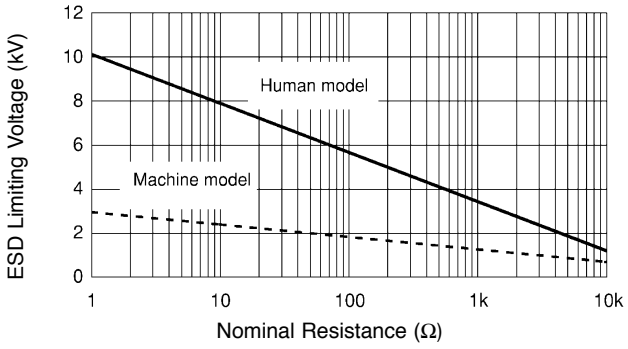
SIZE	TYPE	T.C.R. (ppm/K)	POWER* RATING	MAX. WORKING VOLTAGE	MAX. OVERLOAD VOLTAGE	RESISTANCE RANGE				OPERATING TEMPERATURE RANGE
						D (± 0.5%) E24	F (± 1%) E24	G (± 2%), J (± 5%) E24	K (± 10%), M (± 20%) E12	
0603	SG73 1J	± 400	0.1 W	50 V	100 V	–	–	–	1 Ω ... 8.2 Ω	-55°C ... +155°C
		± 200							10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

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

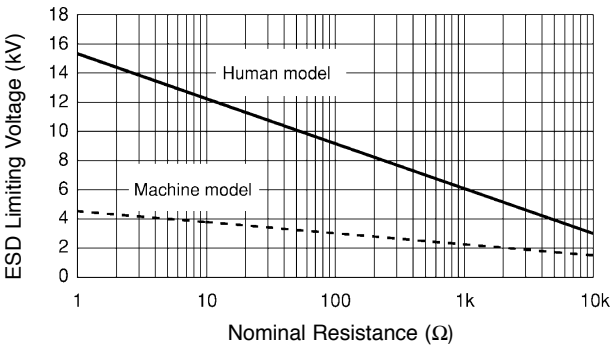
* For resistors operated in ambient temperature over +70°C, power rating shall be derated like shown in below „DERATING CURVE“.

ESD LIMITING VOLTAGE AND DERATING CURVE

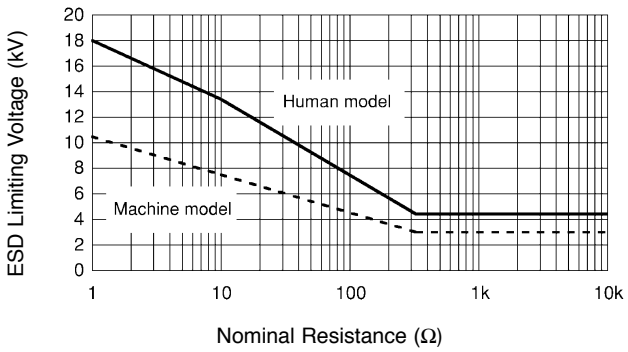
SG73S 2A



SG73S 2B



SG73S 2E



DERATING CURVE