

# PRECISION HIGH VOLTAGE/ HIGH VALUE CHIP RESISTORS

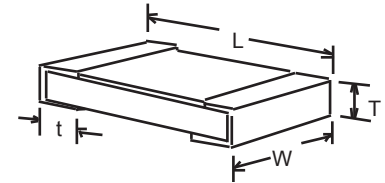
## SRH SERIES



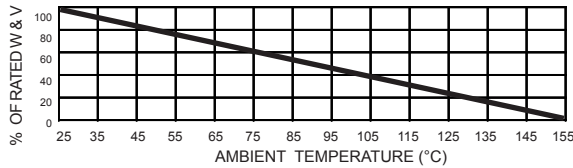
- Industry's highest precision hi-voltage SM resistors!
- Voltage ratings up to 7KV, resistance values to 1TΩ (1012Ω)
- Tolerances to 0.1%, TC's to 25ppm/°C, VC's to 0.5ppm/V

### OPTIONS

- Opt. H: increased voltage (5% & 10% tol.)
- Opt. V: 250° Operating Temperature
- Mil-spec screening/burn-in, special marking, high pulse, custom values/ TC/VC, high frequency designs, etc. Customized resistors have been an RCD specialty for over 30 years!



### DERATING CURVE



### DIMENSIONS

RCD Type	L±.01 [.25]	W±.014 [.35]	T±.008 [.2]	t ±.015 [.38]
SRH1206	.126 [3.2]	.061 [1.55]	.024 [.6]	.020 [.51]
SRH2512	.250 [6.4]	.132 [3.35]	.024 [.6]	.025 [.63]
SRH4020S	.400 [10.2]	.200 [5.08]	.024 [.6]	.035 [.90]
SRH5020	.500 [12.7]	.200 [5.08]	.031 [.8]	.079 [2.0]
SRH7020	.710 [18.0]	.200 [5.08]	.031 [.8]	.079 [2.0]
SRH1020	1.000 [25.4]	.200 [5.08]	.031 [.8]	.079 [2.0]

RCD Type	Rated Power	Rated Voltage	Option 'H' Voltage Rating <sup>1</sup>	Resistance Range <sup>2</sup>		
				0.1%, 0.25%, 0.5%	1%, 2%	5%, 10%
SRH1206	0.25W	400V <sup>3</sup>	600V	100K to 100M	100K to 100M	100K to 1T
SRH2512	1W	1000V	2000V <sup>4</sup>	100K to 100M	100K to 1000M	100K to 1T
SRH4020S	1.5W	4000V	6000V	100K to 100M	100K to 1000M	100K to 1T
SRH5020	2W	2500V	3500V	100K to 100M	100K to 500M	100K to 1000M
SRH7020	3W	3500V	5000V	100K to 100M	100K to 500M	100K to 1000M
SRH1020	4W	5000V	7000V	100K to 100M	100K to 500M	100K to 1000M

<sup>1</sup>Opt.H available in 5% and 10% tolerance <sup>2</sup>Expanded resistance range available <sup>3</sup>Values above 10M rated at 300V <sup>4</sup>Special onstruction available for 3KV capacitor peak voltage discharge

### PERFORMANCE CHARACTERISTICS<sup>1</sup>

Operating Temp. Range	-55 °C to +155°C	
Pulse Capability	1.0%	2x rated voltage, 1.2 x 50uS
Thermal Shock	0.5%	-55°C to +125C, 0.5 hours, 5 cycles
Low Temp. Storage	0.5%	24 hrs @ -55°C
High Temp. Exposure	0.5%	100 hours @ +125°C
Resistance to Solder Heat	0.1%	260 ± 5°C, 3 seconds
Moisture Resistance	0.5%	Mil-STD-202 M.103 95% RH 1000 hours
Load Life(1000 hrs.)	1.0%	Rated Working V per Mil-PRF-55342 4.8.11.1

<sup>1</sup>Characteristics are typical for resistance range up to 1GW, consult factory concerning higher values

### TC AND VOLTAGE COEFFICIENT CHARACTERISTICS

Res. Range	Characteristic	1206	2512	4020	5020	7020	1020
10MΩ to 100M	VCppm/V, typ	50	10	4	3	1	0.5
	TC ppm/°C (opt. TC)	100 (25,50)	100 (25,50)	100 (25,50)	100 (25,50)	100 (25,50)	100 (25,50)
>100M to 500M	VCppm/V, typ	100	15	7	5	2	1
	TCppm/°C (opt. TC)	250 (50,100)	100 (25,50)	100 (25,50)	100 (25,50)	100 (25,50)	100 (25,50)
>500M to 1G	VCppm/V, typ	250	20	10	7	3	2
	TCppm/°C (opt. TC)	250 (100)	250 (100)	100 (25,50)	100 (25,50)	100 (25,50)	100 (25,50)
>1G to 10G	VCppm/V, typ	800	80	20	-	-	-
	TCppm/°C (opt. TC)	1000 (500)	500 (250)	100 (50)	-	-	-
>10G to 100G	VCppm/V, typ (opt. TC)	1500	200	80	-	-	-
	TCppm/°C (opt. TC)	2000 (1000)	500 (250)	250 (100)	-	-	-
>100G to 1T	VCppm/V, typ	4000	400	200	-	-	-
	TCppm/°C (opt. TC)	3000 (n/a)	1000 (500)	500 (250)	-	-	-

### P/N DESIGNATION:

**SRH2512** - **1006** - **F B** **101 W**

RCD Type

Options: V=250°C, H=increased voltage, other codes as assigned by RCD (leave blank if std)

Resistance Code: ≤1%: 3 signif. digits & multiplier, e.g. 1003=100KΩ, 1004= 1MΩ, 1005=10MΩ, 1006=100MΩ, 1G00=1GΩ, 10G0=10GΩ, 100G=100GΩ, 1T00=1TΩ

Resistance Code 2%-10%: 2 digits & multiplier, 104=100KΩ, 105=1MΩ, 106=10MΩ, 107=100MΩ, 1G0=1GΩ, 10G=10GΩ, 100G=100GΩ, 1T0=1TΩ

Tolerance Code: K=10%, J=5%, G=2%, F=1%, D=.5%, C=.25%, B=.1%

Packaging: B= Bulk, T=T&R (1206-5020 sizes)

Temp. Coefficient: 25=25ppm, 50=50ppm, 101=100ppm, 201=200ppm (leave blank if standard)

Termination: W= RoHS (std), Q= Tin/Lead (leave blank if both acceptable)