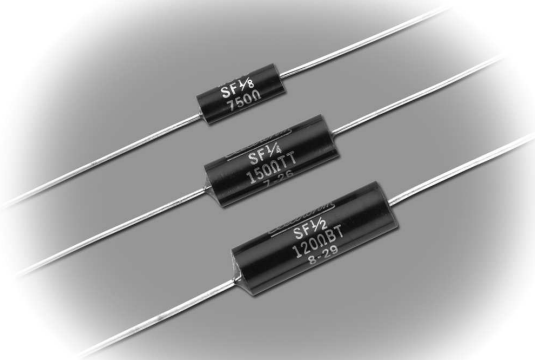


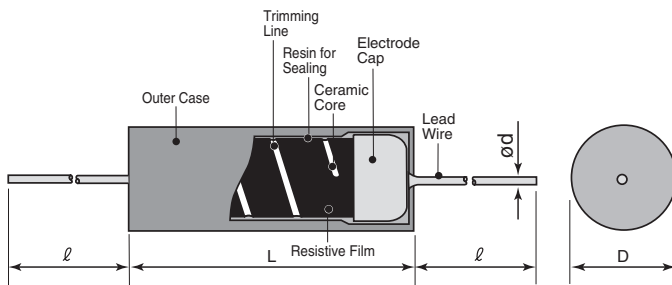


features

- Super high precision resistors with a wide resistance range of 100Ω – 5.11MΩ respond to tolerance ±0.01% and T.C.R. ±5×10⁻⁶/K
- Extremely stable resistors with less variation ±0.01%/year
- Designated resistances (marking in 4-digit effective figures) of tolerances ±0.01% – ±0.25% are available
- Marking: black body color and alphanumeric marking
- Products meet EU RoHS requirements



dimensions and construction



Type	Dimensions inches (mm)			
	L	D	d (Nominal)	ℓ
SF1/8	.413±.016 (10.5±0.4)	.142±.016 (3.6±0.4)	.026 (0.65)	1.50±.118 (38±3)
SF1/4	.630±.016 (16.0±0.4)	.217±.020 (5.5±0.5)		
SF1/2	.787±.020 (20.0±0.5)	.264±.020 (6.7±0.5)	.031 (0.8)	

ordering information

SF Product Code	1/8 Power Rating 1/8: 0.125W 1/4: 0.25W 1/2: 0.5W	Y T.C.R. (×10 ⁻⁶ /K) Y: ±5 T: ±10	C Terminal Surface Material C: SnCu	1003 Nominal Resistance 4 digits*	B Resistance Tolerance T: ±0.01% Q: ±0.02% A: ±0.05% B: ±0.1% C: ±0.25% D: ±0.5%
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* It becomes a real number when a nominal resistance is 4 or more digits of significant figures.

Contact us when you have control request for environmental hazardous material other than the substance specified by EU RoHS.

ratings

Type	Power Rating	T.C.R. (×10 ⁻⁶ /K)	Resistance Range (Ω)						Max. Working Voltage	Max. Overload Voltage
			T:±0.01% E24, E96	Q:±0.02% E24, E96	A:±0.05% E24, E96	B:±0.1% E24, E96	C:±0.25% E24, E96	D:±0.5% E24, E96		
SF1/8YC	0.125W	Y: ±5	100 - 200k	100 - 200k	100 - 200k	100 - 200k	100 - 200k	100 - 200k	250V	500V
SF1/8TC		T: ±10								
SF1/4YC	0.25W	Y: ±5	100 - 511k	100 - 511k	100 - 511k	100 - 511k	100 - 511k	100 - 511k	300V	600V
SF1/4TC		T: ±10								
SF1/2YC	0.5W	Y: ±5	100 - 1M	100 - 1M	100 - 1M	100 - 1M	100 - 1M	100 - 1M	350V	700V
SF1/2TC		T: ±10								

Rated Ambient Temperature: +70°C

Operating Temperature Range: -25°C – +85°C

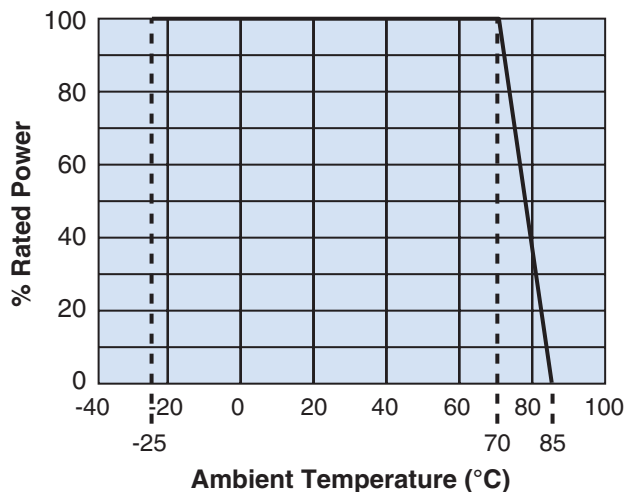
Rated voltage = √Power Rating×Resistance value or Max. working voltage, whichever is lower.

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

1/30/11

environmental applications

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.

Performance Characteristics

Test Items	Performance Requirements $\Delta R \pm \%$	Test Methods
Resistance	Within specified tolerance	25°C
T.C.R.	Within specified T.C.R.	SF1/8 R \leq 200k Ω : +25°C/-15°C and +25°C/+65°C, R>200k Ω : +25°C/+65°C SF1/4 R \leq 511k Ω : +25°C/-15°C and +25°C/+65°C, R>511k Ω : +25°C/+65°C SF1/2 R \leq 1M Ω : +25°C/-15°C and +25°C/+65°C, R>1M Ω : +25°C/+65°C
Overload (Short Time)	0.05	Rated voltage \times 2.5 or Max. overload voltage whichever is lower, for 5s.
Resistance to Soldering Heat	0.05	350°C \pm 10°C, 3s +0.5s/-0s or 260°C \pm 5°C, 10s \pm 1s
Rapid Change of Temperature	0.05	-25°C (30min.)/ +85°C (30min.), 5 cycles 40°C \pm 2°C, 90%–95%RH, 1000h
Moisture Resistance	0.2	1.5h ON/0.5h OFF cycle
Endurance at 70°C	0.2	70°C \pm 3°C, 1000h 1.5h ON/0.5h OFF cycle
Variation Per Year	0.01/Year	Normal temperature and humidity for a year