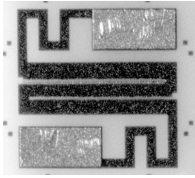


Thin Film 0202 Size Resistor on Alumina



Product may not be to scale

The SFC series resistor chips offer a combination of low shunt capacitance and small size. The SFCs tantalum nitride resistor material offers excellent resistance to high moisture environments. The SFCs are manufactured using Vishay Electro-Films (EFI) sophisticated thin film equipment and manufacturing technology. The SFCs are 100% electrically tested and visually inspected to MIL-STD-883.

APPLICATIONS

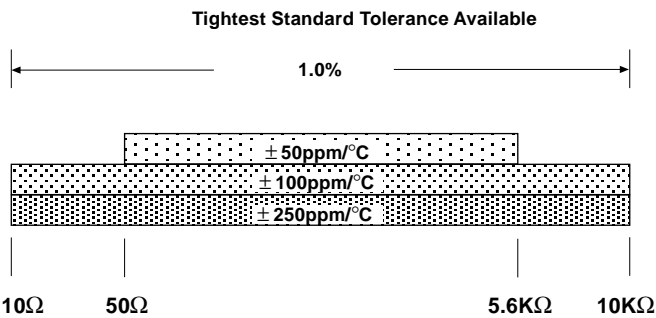
Vishay EFI SFC chip resistors provide excellent high-frequency response and are ideally suited for prototyping. Typical application areas are:

- Amplifiers
- Oscillators
- Attenuators
- Couplers
- Filters

FEATURES

- Small size: 0.020 inches square
- Resistance range: 10Ω to 10KΩ
- Alumina substrate
- Low shunt capacitance: < 0.2pF
- Resistor material: tantalum nitride
- Moisture resistant

TEMPERATURE COEFFICIENT OF RESISTANCE, VALUES AND TOLERANCES



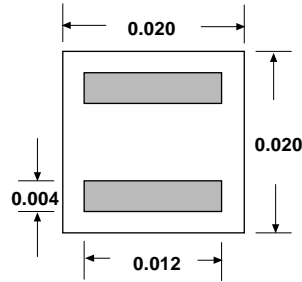
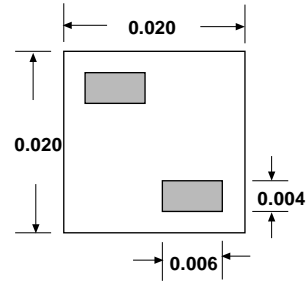
PROCESS CODE	
CLASS H*	CLASS K*
002	122
001	121
000	120

*MIL-PRF-38534

STANDARD ELECTRICAL SPECIFICATIONS

PARAMETER	
Noise, MIL-STD-202, Method 308	- 20dB typical
Moisture resistance, MIL-STD-202, Method 106	± 0.5% maximum ΔR/R
Stability, 1000 hours, + 125°C, 25mW	± 0.5% maximum ΔR/R
Operating temperature range	- 55°C to + 125°C
Thermal shock, MIL-STD-202, Method 107, Test condition F	± 0.25% maximum ΔR/R
High temperature exposure, + 150°C, 100 hours	± 0.5% maximum ΔR/R
Dielectric voltage breakdown	400V
Insulation resistance	10 ¹² minimum
Operating voltage	100V maximum
DC power rating at + 70°C (derated to zero at + 150°C)	62mW
5 x rated power short-time overload, + 25°C, 5 seconds	± 0.25% maximum ΔR/R

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 • SWEDEN +46.8.594.70590 FAX: +46.8.594.70581 • UK +44 191 514 8237 FAX: +44 1953 457 722 • USA: (401) 738-9150 FAX: (401) 738-4389

DIMENSIONS in inches

TYPICAL RANGE
 10Ω - 49Ω

TYPICAL RANGE
 50Ω - 10KΩ

SCHEMATIC

MECHANICAL SPECIFICATIONS in inches

PARAMETER	
Chip size	0.020 x 0.020 ± 0.003 (0.5 x 0.5 ± 0.768mm)
Chip thickness	0.010 ± 0.002 (0.25 ± 0.05mm)
Chip substrate material	99.6% alumina, 2 - 4 microinch finish
Resistor material	Tantalum nitride, self-passivating
Bonding pad size	0.004 x 0.006 (0.10 x 0.15mm) minimum
Number of pads	2
Pad material	25kÅ minimum gold standard
Backing	None

OPTIONS: Gold back for solder die attach
 Consult Applications Engineer

ORDERING INFORMATION

Example: 100% visualled, 50Ω, ± 10%, ± 250ppm/°C TCR, Gold Pads, Class H

P/N:	W	SFC	000	5000	B	K
	INSPECTION /PACKAGING	PRODUCT FAMILY	PROCESS CODE	RESISTANCE VALUE	MULTIPLIER CODE	TOLERANCE CODE
	W = 100% visually inspected parts in matrix tray per MIL-STD-883		See Process Code table	Use first 4 significant digits of resistance	B = 0.01 A = 0.1 0 = 1 1 = 10	F = 1.0% G = 2.0% H = 2.5% J = 5% K = 10% M = 20% L = 25% N = 50%
	X = Sample visually inspected parts loaded in matrix trays (4% AQL)					