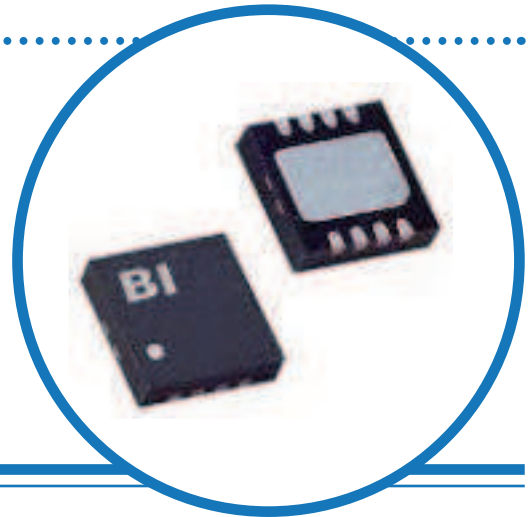


# Nichrome Resistor Networks on Silicon Substrates

SFN08A, SFN08B Series

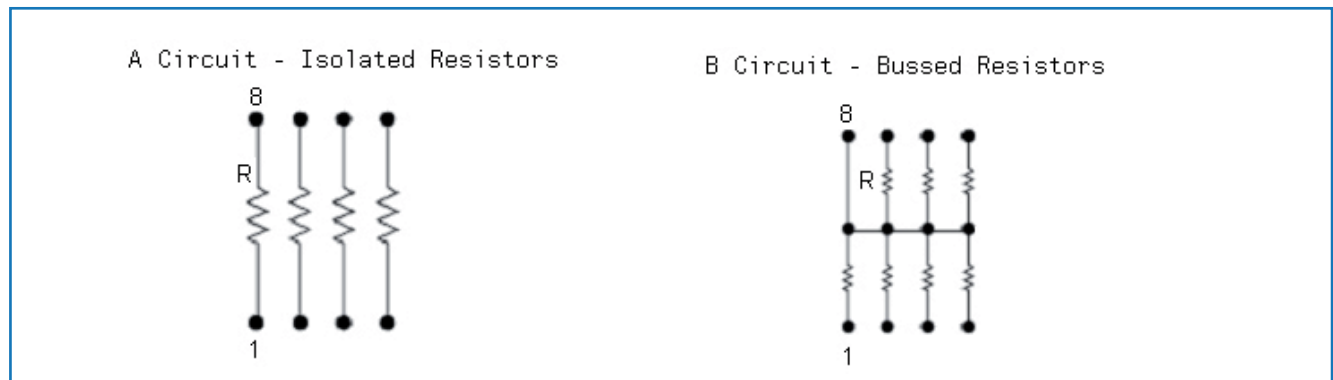
**Isolated and bussed circuits**  
**Thin film resistor network**  
**RoHS compliant**



## Features

Precision Nichrome Resistors on Silicon	Passivation coating provides protection in humid environments
Industry Standard Packaging	8 pad SON <sup>1</sup> 4mm square with 0.8 mm pitch (JEDEC MO-229D)
Ratio Tolerances	< ± 0.05%
TCR Tracking Tolerances	< ± 5 ppm/°C

## Schematics



## Electrical<sup>2</sup>

Standard Resistance Range <sup>3</sup>	1K ohms to 100K ohms (Isolated) 1K ohms to 30K ohms (Bussed)
Resistor Tolerances	± 0.25%
Ratio Tolerances	± 0.05%
TCR	Reference TCR table
Operating Temperature Range	-55°C to +125°C
Interlead Capacitance	< 2 pF
Insulation Resistance	≥ 10,000 Megohms
Maximum Operating Voltage	100 Vdc or √ PR
Noise, Maximum (Mil-STD-202, Method 308)	-25 dB
Resistor Power Rating at 70°C	0.1 Watts

1 Small outline no lead (SON) package is also referred to as quad flat no lead (QFN) or dual flat no lead (DFN) packages.

2 Specifications subject to change without notice.

3 E96 codes available.

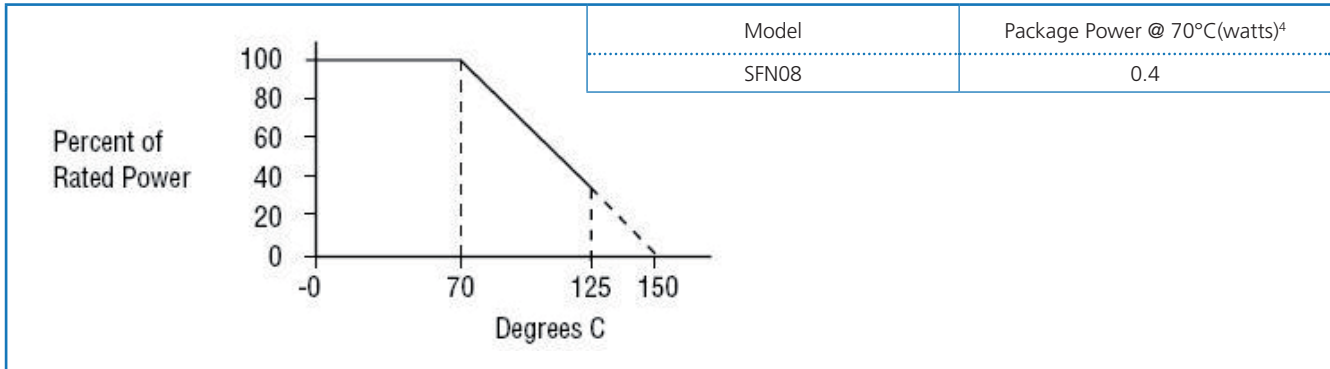
### General Note

TT electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT electronics' own data and is considered accurate at time of going to print.



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## Package Power And Derating Curve



## Environmental (MIL-R-83401)

Thermal Shock plus Power Conditioning	ΔR 0.25%
Short Time Overload	ΔR 0.1%
Terminal Strength	ΔR 0.1%
Moisture Resistance	ΔR 0.2%
Mechanical Shock	ΔR 0.25%
Vibration	ΔR 0.25%
Low Temperature Operation	ΔR 0.05%
High Temperature Exposure	ΔR 0.1%
Resistance to Solder Heat	ΔR 0.1%
Marking Permanency	Per MIL-STD-202, Method 215
Flammability	UL-94V-0 Rated
Storage Temperature Range	-55°C to +125°C

## Mechanical

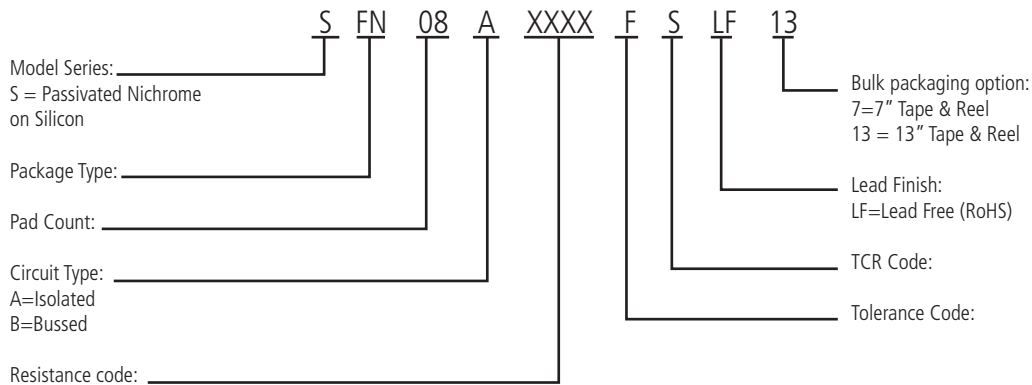
Pad Plating	100 matte Tin (RoHS compliant)
Pad Material	Copper Alloy
Pad Coplanarity	0.003" (0.08 mm)
Substrate Material	Silicon
Resistor Material	Passivated Nichrome
Body Material	Molded Epoxy

4 Maximum power per resistor @ 70C is 100 mW, not to exceed package power

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## Ordering Information<sup>5</sup>



## Package Type

	Package Codes	Package Size	Pad count	Mechanical Outline
SON	FN	4mm x 4mm	8	MO-229D

## Resistance

First 3 digits are significant. Fourth digit denotes number of trailing zeros. For values less than 100, use "R" to denote a decimal point. Example, 51 and 10000 ohms are coded as 51R0 and 1002 respectively. Standard values follow E96.

## Resistance Tolerance

Accuracy Code at 25°C	CA	CB	D	FA	F	G	J
Absolute Resistance Tolerances (%)	± 0.25	± 0.25	± 0.5	± 1.0	± 1.0	± 2.0	± 5.0
Ratio Tolerances (R1 Ref) (%)	± 0.05	± 0.1	± 0.1	± 0.05	± 1.0	N/A	N/A

## Temperature Coefficient Of Resistance (TCR)

TCR Code (-55°C to 125°C)	Q	P	S	L
Absolute (ppm/°C)	± 25	± 50	± 100	± 200
Tracking (R1 Ref) (ppm/°C)	± 5	± 5	N/A	N/A

## Bulk Packaging Options

Model + Pad Count	Quantity	
	7" Reel	13" Reel
SFN08	1000	3000

<sup>5</sup> Contact customer service for custom designs and features.

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