MODELS SS103VD, SFN06VD

Voltage divider circuit Thin film resistor network RoHS compliant available

FEATURES

Precision Nichrome Resistors on Silicon	Passivation coating provides protection in humid environments
Industry Standard Packaging	6 pad SON ¹ 2mm square with 0.65 mm pitch (JEDEC MO-229D) 3 lead SOT23 (JEDEC TO-239)
Ratio Tolerances	< ± 0.05%
TCR Tracking Tolerances	< ± 5 ppm/°C

CIRCUIT SCHEMATIC





ELECTRICAL²

Standard Resistance Range	1K ohms to 100K ohms
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 v PR
Noise, Maximum (MIL-STD-2002, Method 308)	-25 dB
Maximum Package Power @ 70°C	0.2 Watts

RESISTANCE TOLERANCES							
Accuracy Code at 25°C	CA	СВ	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

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.



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TEMPERATURE COEFFICIENT OF RESISTANCE (TCR)

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

POWER DERATING CURVE



ENVIRONMENTAL (MIL-R-83401)

Thermal Shock plus Power Conditioning	∆R 0.25%
Short Time Overload	∆R 0.1%
Moisture Resistance	∆R 0.2%
Mechanical Shock	∆R 0.25%
Vibration	∆R 0.25%
Low Temperature Operation	∆R 0.1%
High Temperature Exposure	∆R 0.1%
Resistance to Solder Heat	∆R 0.05%
Marking Permanency	Per MIL-STD-202, Method 215
Storage Temperature Range	-55°C to +125°C

MECHANICAL

Lead Plating	80/20 Tin Lead (Standard)
	100 matte Tin (RoHS)
Lead Material	Copper Alloy
Lead Configurations (SLP/SS1)	No lead, Gull Wing
Lead Coplanarity (SS1 only)	0.003" (0.102 mm)
Substrate Material	Silicon
Resistor Material	Passivated Nichrome
Body Material	Molded Epoxy
Package Types	6 pad SON 2mm square, 3 lead SOT23
Substrate Material Resistor Material Body Material Package Types	Silicon Passivated Nichrome Molded Epoxy 6 pad SON 2mm square, 3 lead SOT23





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DIVIDER RATIO				
Resistance Code	Ratio (R2/R1)	R1 (ohms)	R2 (ohms)	
01	1.613	12.4K	20K	
02	10	10K	100K	
03	4	5K	20K	
05	1	20K	20K	
06	9	11.3K	101.7K	
07	2	10K	20K	
08	3	3.333K	10K	
09	2	5K	10K	
10	1	10K	10K	
11	2	1K	2K	
12	2	50K	100K	

ORDERING INFORMATION³



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