



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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MNRS Series

Power Shunt Resistor



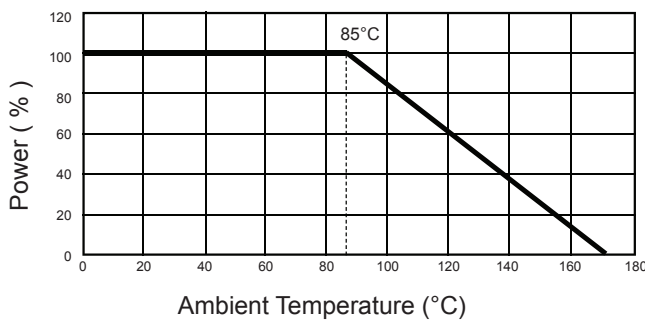
- Resistances from 0.2 mOhm to 4 mOhm
- Power Rating up to 7 Watts
- Resistance Tolerances to $\pm 1\%$
- TCR's to ± 50 ppm/ $^{\circ}\text{C}$
- Excellent long-term stability and low inductance
- Pulse Applications
- Power Modules
- Frequency Converters
- Engine Controls



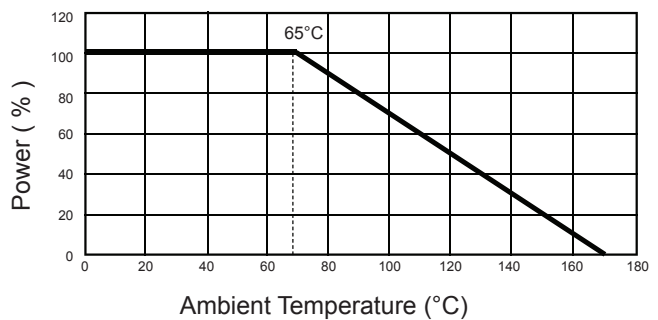
SPECIFICATIONS

Type	MNRS1050	MNRS1575
Power Rating (W)	up to 5W (see table below)	up to 7W (see table below)
Resistance Range (m Ω)	0.5, 1, 2, 3, 4	0.2, 0.5, 1, 2, 3
Temperature Coefficient (depending on ohmic value)	$\pm 50 / 60 / 75 / 100 / 120$ ppm	
Max Current (A)	Must not exceed max power rating using Ohm's Law	
Operating Temperature Range	$-55^{\circ}\text{C} - +170^{\circ}\text{C}$	
MAX Operating Voltage	$\sqrt{P \cdot R}$	
Tolerances (depending on ohmic value)	1% / 2% / 5%	

Power Derating 1050



Power Derating 1575

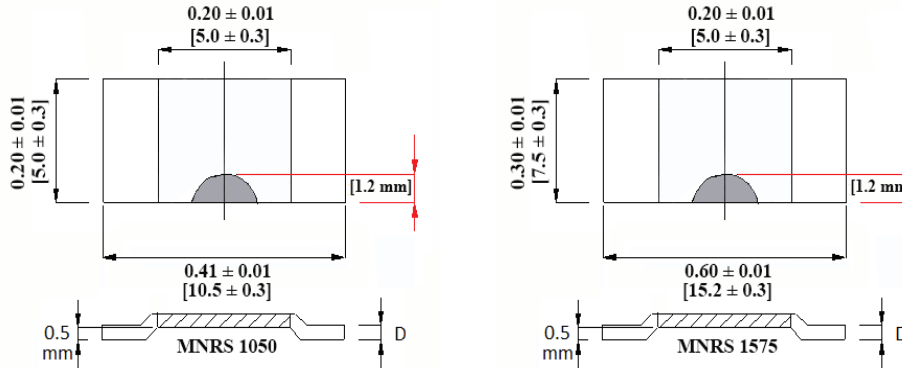


Ordering Information

Part Description: Part Type - Resistance - Tolerance - TCR - Packaging

Example: MNRS1575 3mOhm 1% 100ppm

Specifications



Type	Value	Power Rating	Material	D (in) [mm]	TCR
MNRS1050	0.5mΩ	5W	Manganin	0.034± 0.002 [0.88 ± 0.05]	75PPM
MNRS1050	1mΩ	4W	Manganin	0.017± 0.002 [0.43 ± 0.05]	60 PPM
MNRS1050	2mΩ	4W	NiCr Alloy	0.025± 0.002 [0.64 ± 0.05]	100 PPM
MNRS1050	3mΩ	3W	NiCr Alloy	0.017 ± 0.002 [0.43 ± 0.05]	100 PPM
MNRS1050	4mΩ	2.5W	NiCr Alloy	0.013 ± 0.002 [0.32 ± 0.05]	100 PPM
MNRS1575	0.2mΩ	7W	Manganin	0.059 ± 0.002 [1.50 ± 0.05]	50 PPM
MNRS1575	0.5mΩ	6W	Manganin	0.022 ± 0.002 [0.56 ± 0.05]	100 PPM
MNRS1575	1mΩ	6W	NiCr Alloy	0.035 ± 0.002 [0.90 ± 0.05]	120 PPM
MNRS1575	2mΩ	4W	NiCr Alloy	0.018 ± 0.002 [0.45 ± 0.05]	120 PPM
MNRS1575	3mΩ	3.5W	NiCr Alloy	0.012 ± 0.002 [0.30 ± 0.05]	120 PPM

Test	Specification	Test Method
Short Time Overload	±0.2%	5x rated power for 5 seconds
Endurance	±1.0%	Power rating 90 min. "ON", 30 min. "OFF" for 2000 hours
Moisture Resistance	±0.2%	90 ~ 98%RH, +25°C, +65°C, -10°C, 10 cycles
High Temperature Exposure	±0.2%	140°C for 250 hours
Resistance to Soldering Heat	±0.2%	350°C for 30 seconds or 250°C for 10 min.
Vibration, High Frequency	±0.2%	15g 10~2000Hz, 36 cycles
Inductance	<3nH	-
Thermal Shock	±0.1%	-65°C, 25°C, 125°C, 25°C, 25 cycles