

# Featured Products



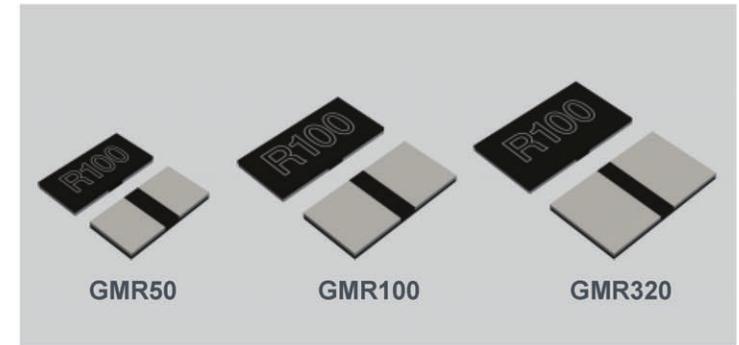
Ideal for high-power current detection

## High Power Low Ohmic Shunt Resistors (Metal Plate type)

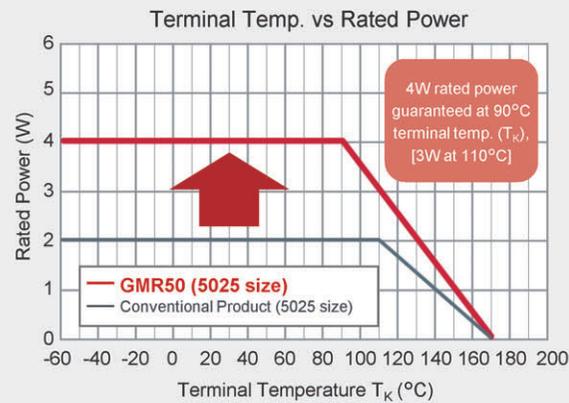
GMR series

### High Power GMR series (F Class $\pm 1\%$ )

<p>4W (90°C) <b>New</b> GMR50</p>	<p>7W (70°C) GMR100</p>	<p>10W (70°C) <b>New</b> GMR320</p>
5m $\Omega$ /10m $\Omega$ to 220m $\Omega$		5m $\Omega$ /10m $\Omega$ to 100m $\Omega$



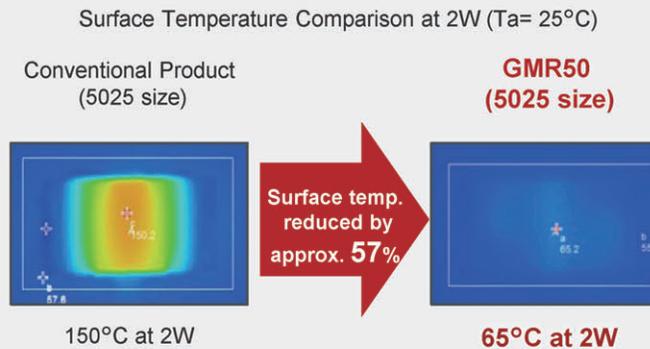
#### ■ Guaranteed High Rated Power



The GMR50 series delivers the industry's highest\* guaranteed rated power of 4W at terminal temperature  $T_K=90^\circ\text{C}$  in the compact 5.0 x 2.5mm size (3W at  $T_K=110^\circ\text{C}$ )

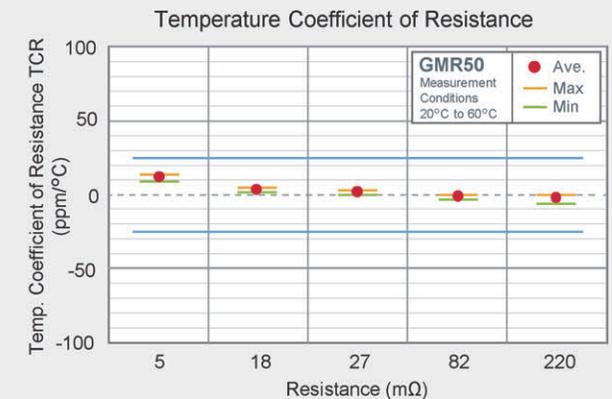
\*ROHM December 2019 study

#### ■ Reduces Surface Temperature Rise



Optimized electrode structure and resistive element design significantly reduce heat generation

#### ■ Excellent TCR Even in the Low Resistance Region



Achieves superior TCR characteristics even in the low resistance region by adopting a high performance alloy for the metallic resistive element

## Resistors for High Power Current Detection

Advancements made in the computerization and electrification of industrial and vehicle systems are increasing the importance of safety, security, and reliability. One part that plays a major role are resistors for current detection. ROHM's GMR series contributes to improved system reliability by detecting current with high accuracy and low loss – even in the high power region.

### GMR series Lineup

Part No.	size code inch(mm)	Rated Power (Rated Terminal Temp.)	Resistance Tolerance	Temperature Coefficient of Resistance*1 (ppm/°C)	Resistance	Operating Temp. (°C)	Automotive Grade (AEC-Q200 Qualified)
<b>New</b> GMR50	5025 (2010)	3W (11°C) 4W (9°C)	F (±1%)	0 to +25	5mΩ	-55 to +170 (★-65 to +170)	YES
				±25	10mΩ to 220mΩ*2*3		
<b>New</b> GMR100	6432 (2512)	3W (110°C) ★5W (110°C) ★7W (70°C)	F (±1%)	0 to +25	5mΩ		YES
				±20	10mΩ to 220mΩ*2*3		
GMR320	7142 (2817)	7W (110°C) 10W (70°C)	F (±1%)	0 to +25	5mΩ		YES
				±25	10mΩ to 100mΩ*2*3		

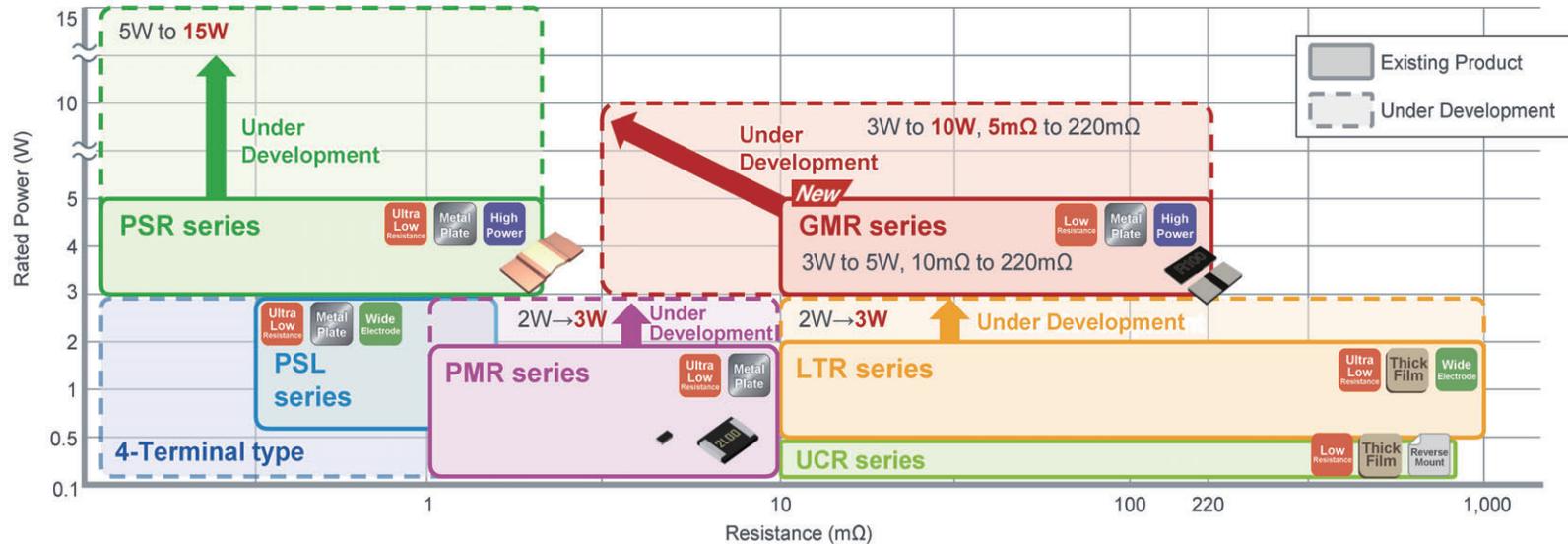
★: Under Verification

\*1 (+20°C to +60°C) \*2 Please contact us for resistance values. \*3 The development schedule may vary depending on the resistance value. Please inquire.

### Applications

- Automotive  
ECU, EPS,  
inverters/motors,  
peripheral circuits
- Industrial Equipment  
UPS, general inverters
- Large Appliances  
Inverters for  
refrigerators, AC,  
washing machines,  
vacuum cleaners, etc.

### ROHM's Resistor Selection Chart



The content specified in this document is correct as of December 1st, 2019.



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