

High Power Low Ohmic Shunt Resistors

High heat dissipation structure delivers high rated power in a compact size

GMR Series

APEC

Features

- Compact, high power design (3W to 5W)
- Low resistance lineup : 5mΩ to 220mΩ
- Special alloy used for low TCR

Applications

- Automotive (engine ECUs, EFI, peripheral motor circuits)
- Industrial (FA equipment, peripheral motor circuits, power supplies)
- Home appliances (AC, washers, refrigerators)

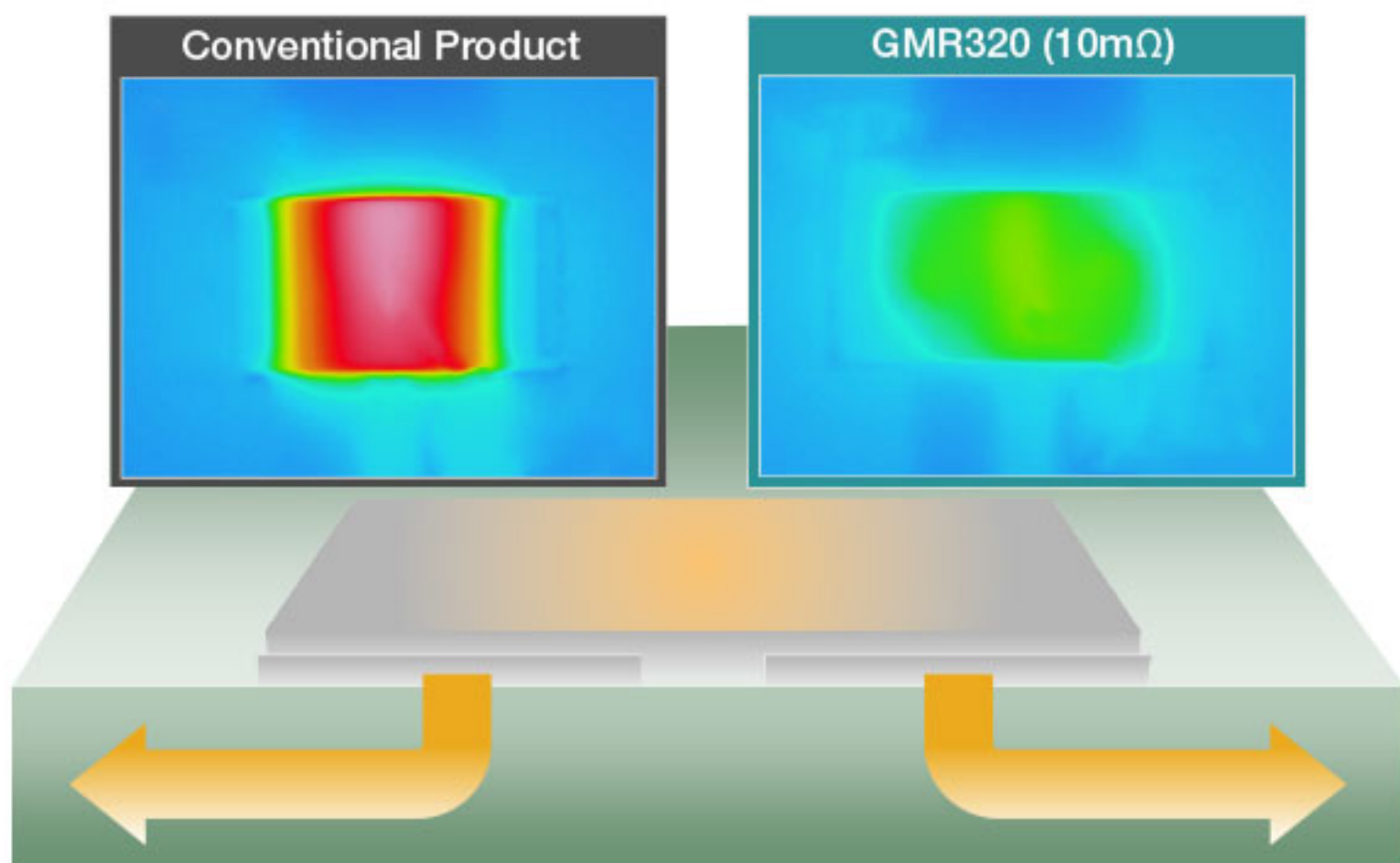
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New structure improves heat dissipation



Surface temperature rise is minimized, increasing temperature detection accuracy

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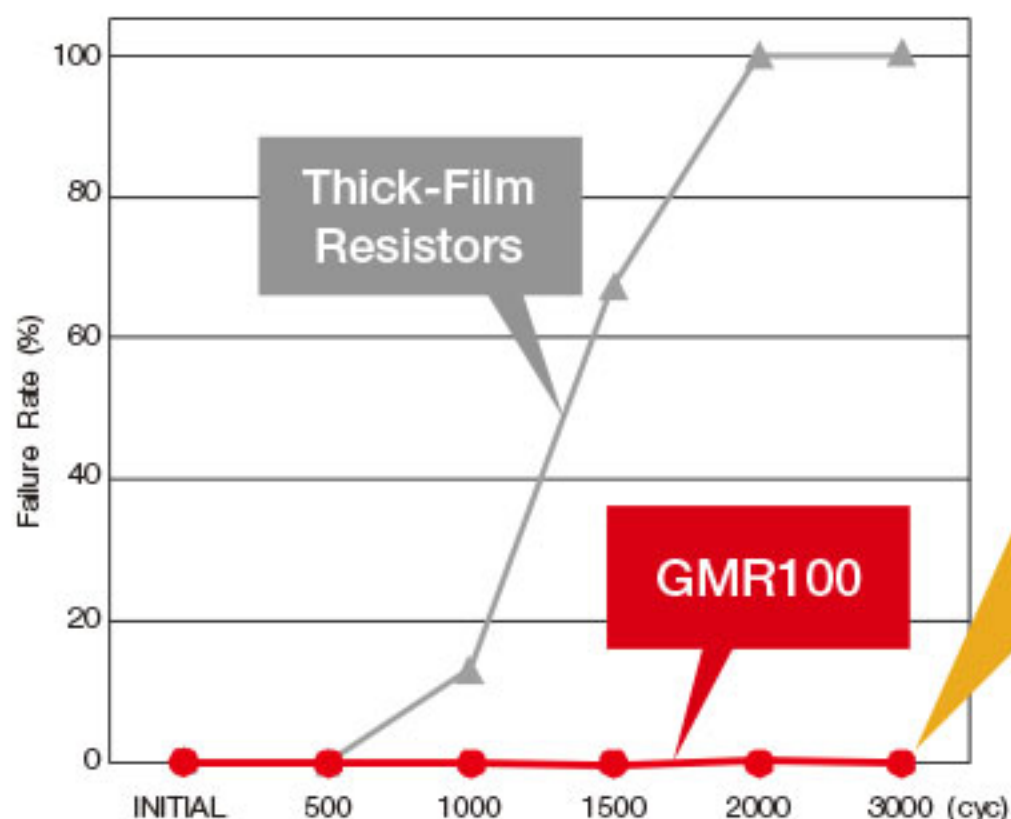
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Excellent Joint Reliability

Temperature Cycling Comparison (Same Sized Products)

Test conditions: $-55^{\circ}\text{C} \leftrightarrow +155^{\circ}\text{C}$ (No load for 30min) Sample size: 30 pcs



Low failure rate even after more than 1000 cycles (required for the automotive and industrial markets)

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Lineup

Part No.	Size (mm [Inch])	Rated Power (W)	Resistance Tolerance	Temperature Coefficient of Resistance (ppm/°C)*	Resistance Range (mΩ)	Operating Temperature Range (°C)
☆ GMR50	5.0 x 2.5 [2010]	2	F (±1%)	0~+50	5	-55 to +170
				±25	10 to 200	
New GMR100	6.4 x 3.2 [2512]	3	F (±1%)	0~+50	☆5	
				±20	10 to 220	
☆ GMR320	7.1 x 4.2 [2817]	5	F (±1%)	±50	5	
				±25	10 to 100	

☆: Under Development *(+20°C to +60°C)