

# Featured Products



Extends the guaranteed rated power to 15W

## High Power Ultra-Low-Ohmic Shunt Resistors

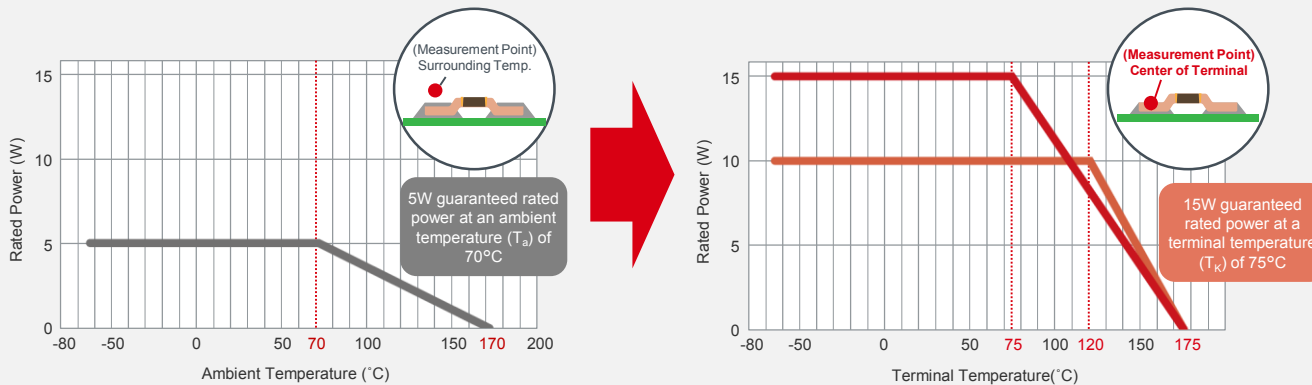
PSR series (0.1mΩ to 3mΩ)

- Extends the guaranteed rated power to 15W (0.1mΩ PSR500)
- Excellent temperature coefficient of resistance (TCR) even in the ultra-low resistance region
- High heat dissipation structure supports large currents



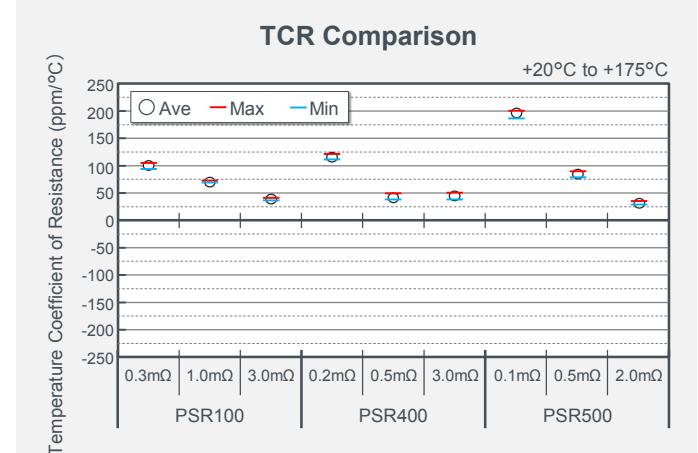
### ■ Increased Guaranteed Rated Power

Derating Curve Comparison: 0.1mΩ PSR500






Achieves a guaranteed high power of up to 15W by switching to terminal temperature derating

### ■ Superior Temperature Coefficient of Resistance (TCR)



Contributes to improved current detection accuracy

## Lineup

Part No.	Size mm (inch)	Rated Power		Resistance Tolerance	Temperature Coefficient of Resistance (ppm/°C)	Resistance (mΩ)	Rated Current (A)	Operating Temp. (°C)
		Ambient Temperature Derating	[After Rating Increase] Terminal Temperature Derating					
<b>PSR100</b> 	6432 (2512)	3W (70°C)	8W (75°C), 4W (140°C)	F (±1%)	0 to +150	0.3	163 (8W) /115 (4W)	-65 to +175
			6W (75°C), 4W (140°C)		0 to +100	0.5	126 (8W) /89 (4W)	
			4W (75°C), 3W (140°C)		0 to +50	1.0	89 (8W) /63 (4W)	
					0 to +50	2.0	54 (6W) /44 (4W)	
					0 to +50	3.0	36 (4W) /31 (3W)	
<b>PSR400</b> 	10×5.2 (3921)	4W (70°C)	12W (75°C), 5W (130°C)	F (±1%)	125±50	0.2	244 (12W) /158 (5W)	
			10W (75°C), 5W (130°C)		0 to +100	0.3	182 (10W) /129 (5W)	
			8W (75°C), 5W (130°C)		0 to +75	0.5	141 (10W) /100 (5W)	
			6W (75°C), 4W (115°C)		0 to +75	1.0	89 (8W) /70 (5W)	
			5W (70°C), 3W (115°C)		0 to +75	2.0	54 (6W) /44 (4W)	
					0 to +75	3.0	40 (5W) /31 (3W)	
<b>PSR500</b> 	15×7.75 (5931)	5W (70°C)	15W (75°C), 10W (120°C)	F (±1%)	200±50	0.1	387 (15W) /316 (10W)	
			10W (75°C), 7W (120°C)		0 to +150	0.2	273 (15W) /223 (10W)	
			10W (75°C), 6W (120°C)		0 to +150	0.3	182 (10W) /152 (7W)	
			7W (70°C), 4W (115°C)		0 to +150	0.4	158 (10W) /132 (7W)	
					0 to +150	0.5	141 (10W) /118 (7W)	
					0 to +75	1.0	100 (10W) /77 (6W)	
	0 to +75	2.0	59 (7W) /44 (4W)					

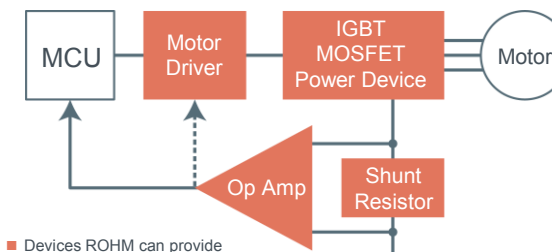
## Application Examples

- Automotive (EPS, electric compressors, DC/DC converters)
- Industrial (power conditioners, power tools)
- Li-ion batteries

Supports universal use in high current detection applications



### Circuit Detection Circuit Example



A circuit that controls the Speed of the motor and protects it from destruction by measuring the output current of IGBTs, MOSFETs, motor drivers, and the like using a shunt resistor



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