

# NEW PRODUCT BRIEF



## Bourns® PWR6927/8030/8937/A247/B053 Series High Power SMD Wirewound Resistors

### INTRODUCTION

Bourns' latest SMD wirewound resistor family offers a high power rating and high pulse withstand capability. The Bourns® Model PWR6927/8030/8937/A247/B053 Series is designed specifically for applications that require these features, so they meet increased stability, quality, and high reliability design specifications. Based on the series' advanced SMD architecture, Bourns' new family of wirewound resistors also helps designers meet application safety requirements.

### FEATURES

- Superior pulse capability
- Very high power up to 10 W
- Excellent surge capability
- Ultra-low TCR
- Non-inductive versions available
- UL 94V-0, RoHS\* and SHVC compliant
- Halogen free\*\* models available

### BENEFITS

- Offers improved reliability and stability features compared to standard thick film resistors, thin film resistors, and conventional wirewound resistors.
- Ideal for applications requiring high pulse capabilities and increased reliability.
- Well-suited for high power-rated applications such as those used to discharge/pre-charge solar power or for motor control.
- Delivers capabilities that standard thick film resistors and thin film resistors typically cannot provide.

### APPLICATIONS

- High power discharging
- Telecommunications
- Motor control
- Switched-Mode Power Supplies (SMPS)
- Energy Storage Systems (ESS)

### HOW TO ORDER

	<b>PWR6927 W</b>	<b>10R0 J E</b>
Model	_____	
	PWR6927	
	PWR8030	
	PWR8937	
	PWRA247	
	PWRB053	
Type	_____	
	W = Wirewound	
	N = Non-inductive Option	
Special Version	_____	
	Blank = Default	
	H = Halogen Free	
Resistance Value	_____	
	<100 ohms.... "R" represents decimal point (examples: 7R50 = 7.5 Ω; R050 = 0.050 Ω)	
	≥100 ohms.... First three digits are significant, fourth digit represents number of zeros to follow (examples: 2000 = 200 ohms; 2002 = 20K ohms)	
Resistance Tolerance	_____	
	J = 5 %	
	F = 1 %	
	D = 0.5 %	
Packaging	_____	
	E = Tape & Reel	

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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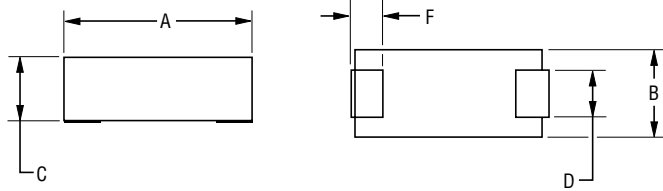
### ELECTRICAL CHARACTERISTICS

Series	Power	Resistance Range 1% Based on E24+E96 Series 5% Based on E24 Series	Resistance Range (Non-inductive Versions) Based on E24 Series	Tolerance	Temperature Coefficient	Operating Temperature	Maximum Voltage
PWR6927	3 W	0.05 Ω - 16K Ω	0.05 Ω - 3.3K Ω	0.5 % / 1 % / 5 %	<0.1 Ω ±300 PPM/°C	-65 °C to +175 °C	√P*R
PWR8030	5 W	0.1 Ω - 22K Ω	0.05 Ω - 4K Ω		0.1 - 0.99 Ω ±90 PPM/°C		
PWR8937	5 W	0.1 Ω - 33K Ω	0.05 Ω - 6K Ω		1.0 - 10 Ω ±50 PPM/°C		
PWRA247	7 W	0.1 Ω - 50K Ω	0.05 Ω - 8K Ω		>10 Ω ±20 PPM/°C		
PWRB053	10 W	0.1 Ω - 70K Ω	0.05 Ω - 10 K				

For full characteristics, see data sheet

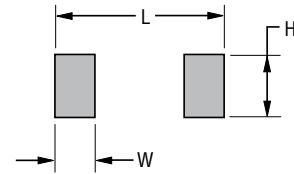
### PRODUCT DIMENSIONS

### RECOMMENDED PAD LAYOUT



TOLERANCE:  $\frac{\pm 0.05}{(\pm .002)}$

DIMENSIONS:  $\frac{\text{MM}}{(\text{INCHES})}$



Model	A	F	L	C	B	D	W	H
PWR6927	$\frac{17.50}{(0.689)}$	$\frac{2.50}{(0.098)}$	$\frac{18.5}{(0.728)}$	$\frac{6.80}{(0.267)}$	$\frac{6.92}{(0.272)}$	$\frac{4.80}{(0.189)}$	$\frac{3.50}{(0.138)}$	$\frac{6.00}{(0.236)}$
PWR8030	$\frac{20.80}{(0.820)}$	$\frac{3.00}{(0.118)}$	$\frac{21.8}{(0.858)}$	$\frac{7.80}{(0.307)}$	$\frac{7.60}{(0.299)}$	$\frac{4.80}{(0.189)}$	$\frac{4.00}{(0.157)}$	$\frac{5.50}{(0.217)}$
PWR8937	$\frac{22.50}{(0.886)}$	$\frac{3.00}{(0.118)}$	$\frac{23.9}{(0.941)}$	$\frac{10.30}{(0.406)}$	$\frac{9.20}{(0.362)}$	$\frac{9.20}{(0.362)}$	$\frac{4.30}{(0.169)}$	$\frac{10.0}{(0.394)}$
PWRA247	$\frac{30.60}{(1.205)}$	$\frac{3.50}{(0.138)}$	$\frac{32.0}{(1.260)}$	$\frac{13.00}{(0.512)}$	$\frac{12.0}{(0.472)}$	$\frac{11.80}{(0.465)}$	$\frac{4.80}{(0.189)}$	$\frac{12.7}{(0.500)}$
PWRB053	$\frac{51.60}{(2.030)}$	$\frac{2.00}{(0.079)}$	$\frac{53.0}{(2.087)}$	$\frac{15.00}{(0.591)}$	$\frac{13.6}{(0.535)}$	$\frac{13.6}{(0.535)}$	$\frac{3.40}{(0.134)}$	$\frac{14.3}{(0.563)}$

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