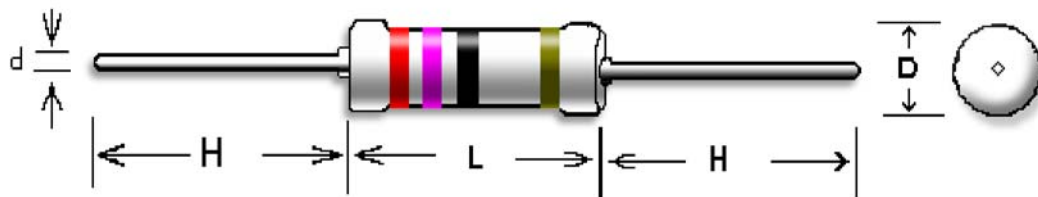


# PPR- Pulse Protective Resistor

## Features

This series is applied in high-frequency, sharp-impulse circuits. For example, missile detonators, fuel ignition systems, etc. It is capable to completely replace carbon composition resistor. And comparing to carbon composition resistor, this series offers every better aspect of performance.



## Dimensions:

Type	Body Length (L , mm)	Body Diameter (D , mm)	Lead Wire Length (H , mm)	Lead Wire Diameter (d , mm)	Net Weight Per 1000Pcs
PPR16	3.2 ±1.0	1.9 ±0.2	28 ±3.0	0.45 ±0.02	145 Grams
PPR25	6.5 ±1.0	2.6 ±0.3	26 ±3.0	0.55 ±0.02	300 Grams
PPR52	6.5 ±1.0	2.6 ±0.3	26 ±3.0	0.55 ±0.02	300 Grams
PPR51	8.8 ±1.0	3.2 ±0.2	26 ±3.0	0.7 ±0.03	340 Grams
PPR100	10.5 ±1.0	3.5 ±0.5	28 ±3.0	0.7 ±0.03	500 Grams
PPR200	13.5 ±1.0	5.0 ±0.5	30 ±3.0	0.8 ±0.03	1050 Grams

## General Specifications:

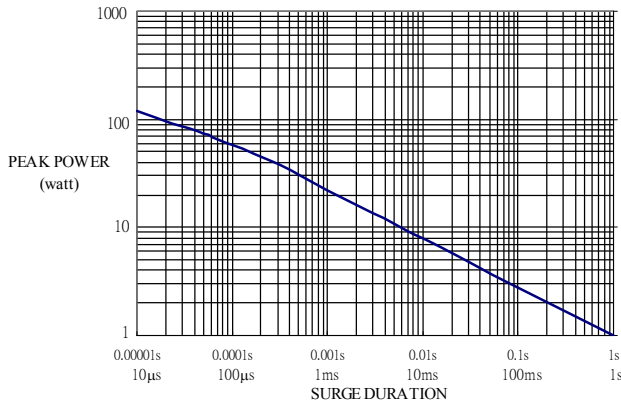
Type	Power Rating At 70°C	Max. Working Voltage	Max. Permissible Surge Voltage at 1.2/10µs	Min. Resistance	Max. Resistance	Resistance Tolerance	Standard Resistance Values
PPR16	1/6W	250V	5KV	10Ω	1MΩ	±5%	E-24
PPR25	1/4W	250V	7KV	10Ω	4.7MΩ	±5%	E-24
PPR52	1/2W	250V	7KV	10Ω	4.7MΩ	±5%	E-24
PPR51	1/2W	350V	10KV	2.2Ω	4.7MΩ	±5%	E-24
PPR100	1W	350V	15KV	10Ω	4.7MΩ	±5%	E-24
PPR200	2W	400V	20KV	10Ω	4.7MΩ	±5%	E-24

*Special sizes, values, and specifications not listed available on special order.*

# PPR- Pulse Protective Resistor

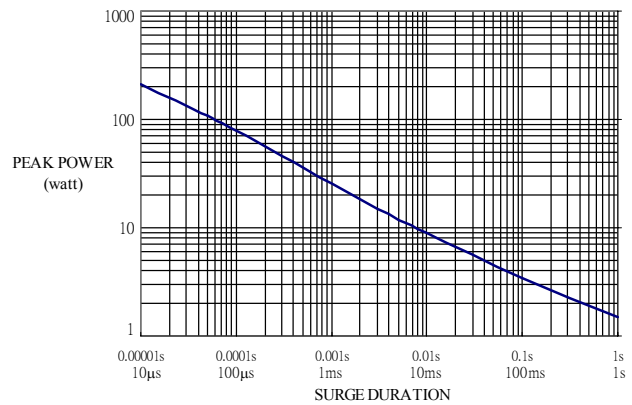
PPR-16

SURGE PERFORMANCE



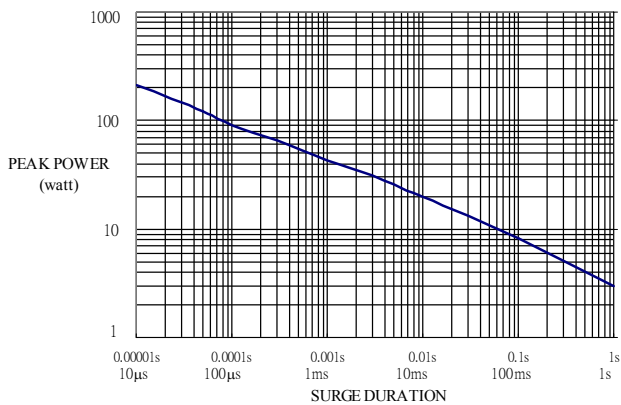
PPR-25

SURGE PERFORMANCE



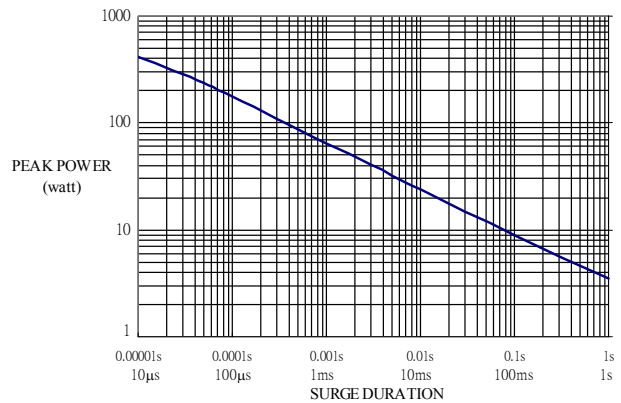
PPR-52

SURGE PERFORMANCE



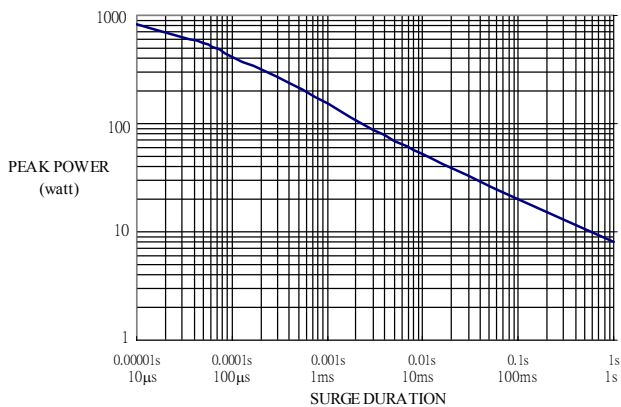
PPR-51

SURGE PERFORMANCE



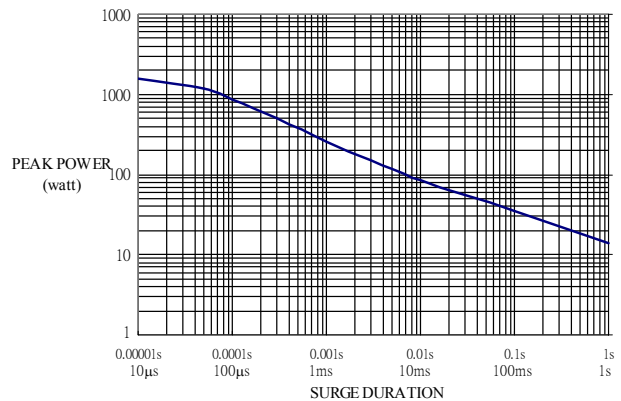
PPR-100

SURGE PERFORMANCE



PPR-200

SURGE PERFORMANCE



Jul. 30, 2004

# PPR- Pulse Protective Resistor

## Technical Summary:

Characteristics	Limits	
Power Derating, Linear	100% @ <+70°C, 0% @ +155°C	
Dielectric Withstanding Voltage, VAC or DC	PPR16:	300
	PPR25/ 52/ 51/ 100 :	600
	PPR200:	700
Temperature Coefficient, PPM / °C	2.2Ω~360KΩ	±750
	390KΩ~4.7MΩ	±1200
Operating Temperature Range, °C	-55 ~ +150	
Insulation Resistance, MΩ	>10 <sup>4</sup>	

## Performance Specifications:

Tests Characteristics	Test Conditions	Limits
Short Time Over Load	IEC 60115-1 4.13 5 seconds 2.5x rated voltage (not over max. overload voltage)	±(1%+0.05R)
Load Life In Humidity	IEC 60115-1 4.24 56 days at 40°C and 93% relative humidity	±(5%+0.05R)
Load Life (At 70°C)	IEC 60115-1 4.25.1 Rated load 1.5 hours ON, 0.5 hours OFF, at 70°C	±(5%+0.05R)
Resistance To Soldering Heat	IEC 60115-1 4.18 10 seconds at 260°C solder bath temperature	±(1%+0.05R)
Solderability	MIL-STD-202 Method 208 Solder area covered after 230±5°C/5±0.5 seconds w/ flux applied	95% Min.
Vibration	MIL-STD-202 Method 204 Six hours in each parallel and axial direction w/ a simple harmonic motion having an amplitude of 1.52mm and 10 to 20,000 Hz.	±(1%+0.05R)
Terminal Endurance	IEC 60115-1 4.25.3 1000 hours at 155°C without load	±(1%+0.05R)
Thermal Shock	IEC 60115-1 4.19 -55°C 30minutes, +155°C 30minutes, 5 cycles	±(2%+0.05R)
Surge Test	Surge voltage = $\sqrt{(2400 \times P \times R)}$ DC <i>P is power rating, R is resistance value, surge voltage is not more than listed at right.</i> Surge spec = 1.2/50µs Period = 1 sec Number of surges = 50	PPR16: 5KV
		PPR25: 7KV
		PPR52: 7KV
		PPR51: 10KV
		PPR100: 15KV
		PPR200: 20KV

## Ordering Information

Type	Tolerance	Resistance Value	Packaging	Special Request (Optional)
PPR100 PPR200	J (5%)	10K	B TR	LV (Low value)

Jul. 30, 2004