

PMR205

RoHS
Compliant

- RC unit, metallized paper with integrated resistor
- 0.1 – 1.0 μF , 22 - 680 Ω , 125 VAC, +85 $^{\circ}\text{C}$

- Small dimensions
- High dU/dt capability.
- Excellent self-healing properties.
Ensures long life even when subjected to frequent overvoltages.
- Self-extinguishing encapsulation.
- Good resistance to ionisation due to impregnated dielectric.
- The impregnated paper ensures excellent stability giving outstanding reliability properties, especially in applications having continuous operation.

TYPICAL APPLICATIONS

RC unit for use in DC and AC applications for:

- contact protection
- interference suppression of contacts
- transient suppression

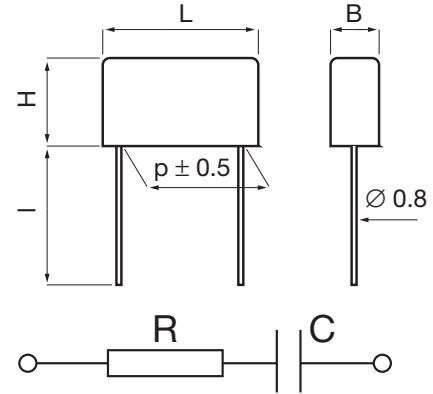
CONSTRUCTION

Single layer metallized paper. Encapsulated and impregnated in self-extinguishing material meeting the requirements of UL 94V-0. The resistance in the metal layer is utilized as series resistance, integrated resistor.

TECHNICAL DATA

| | |
|------------------------------|---|
| Rated voltage | 250 VDC, 125 VAC |
| Capacitance range | 0.1–1.0 μF |
| Capacitance tolerance | $\pm 20\%$ |
| Resistance range | 22 – 680 Ω |
| Resistance tolerance | $\pm 30\%$ |
| Peak pulse voltage | 375 V |
| Temperature range | –40 to +85 $^{\circ}\text{C}$ |
| Climatic category | 40/085/56/B |
| Series resistance | The series resistance is defined at 1 kHz for RC $\geq 50 \mu\text{s}$ and at 100 kHz for RC $< 50 \mu\text{s}$. |
| Insulation resistance | $\geq 3000 \text{ M}\Omega$ for C $\leq 0.33 \mu\text{F}$ $\geq 1000 \text{ s}$ for C $> 0.33 \mu\text{F}$ Measured at 100 VDC after 60 s, +23 $^{\circ}\text{C}$ |
| Power ratings | The average losses may reach 0.5 W provided the surface temperature does not exceed + 85 $^{\circ}\text{C}$. For maximum permitted power dissipation v temperature, see derating curves. |

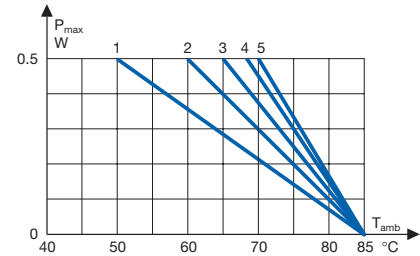
| Curve | Dimensions |
|-------|------------|
| 1 | B = 5.2 |
| 2 | B = 7.3 |
| 2 | B = 7.8 |
| 3 | B = 7.6 |
| 4 | B = 9.0 |
| 5 | B = 11.3 |



l: standard: 30 +5/-0 mm (code R30)

option 1: short leads, tolerance +0/-1 mm (standard 6 mm, code R06)
Other lead lengths on request

option 2: 30 mm insulated solid leads,
ordering code: replace R30 with R300PS in std P/N



Maximum allowable power dissipation vs ambient temperature and case sizes.

ENVIRONMENTAL TEST DATA

| | | | |
|----------------------|-------------------------|--|---|
| Vibration | IEC 60068-2-6, Test Fc | 3 directions at 2 hour each 10 – 500 Hz at 0.75 mm or 98 m/s ² | No visible damage, No open or short circuit |
| Bump | IEC 60068-2-29, Test Eb | 4000 bumps at 390 m/s ² | No visible damage, No open or short circuit |
| Solderability | IEC 60068-2-20, Test Ta | Solder globule method | Wetting time < 1 s |
| Humidity | IEC 60068-2-3, Test Ca | +40 $^{\circ}\text{C}$ and 90 – 95% R.H. | 56 days |

Statements of suitability for certain applications are based on our knowledge of typical operating conditions for such applications, but are not intended to constitute – and we specifically disclaim – any warranty concerning suitability for a specific customer application or use. This Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by us with reference to the use of our products is given gratis, and we assume no obligation or liability for the advice given or results obtained.

ARTICLE TABLE

| Capacitance µF | Resistance Ω | Max dimensions in mm | | | | Quantity per package | | | Weight g | Article code |
|-------------------|-----------------|----------------------|------|------|------|----------------------|------------|-------------------|-------------|---------------------|
| | | B | H | L | p | R30 pcs | R06 pcs | reel taped pcs | | |
| 0.10 | 33 | 5.2 | 10.5 | 18.5 | 15.2 | 500 | 1000 | 600 | 1.7 | PMR205AB6100M033R30 |
| 0.10 | 47 | 5.2 | 10.5 | 18.5 | 15.2 | 500 | 1000 | 600 | 1.7 | PMR205AB6100M047R30 |
| 0.10 | 100 | 5.2 | 10.5 | 18.5 | 15.2 | 500 | 1000 | 600 | 1.7 | PMR205AB6100M100R30 |
| 0.10 | 220 | 5.2 | 10.5 | 18.5 | 15.2 | 500 | 1000 | 600 | 1.7 | PMR205AB6100M220R30 |
| 0.15 | 68 | 5.2 | 10.5 | 18.5 | 15.2 | 500 | 1000 | 600 | 1.7 | PMR205AB6150M068R30 |
| 0.15 | 100 | 5.2 | 10.5 | 18.5 | 15.2 | 500 | 1000 | 600 | 1.7 | PMR205AB6150M100R30 |
| 0.22 | 47 | 7.3 | 13.0 | 18.5 | 15.2 | 400 | 800 | 400 | 3.0 | PMR205AB6220M047R30 |
| 0.22 | 100 | 7.3 | 13.0 | 18.5 | 15.2 | 400 | 800 | 400 | 3.0 | PMR205AB6220M100R30 |
| 0.22 | 220 | 7.3 | 13.0 | 18.5 | 15.2 | 400 | 800 | 400 | 3.0 | PMR205AB6220M220R30 |
| 0.22 | 330 | 7.3 | 13.0 | 18.5 | 15.2 | 400 | 800 | 400 | 3.0 | PMR205AB6220M330R30 |
| 0.22 | 470 | 7.3 | 13.0 | 18.5 | 15.2 | 400 | 800 | 400 | 3.0 | PMR205AB6220M470R30 |
| 0.25 | 200 | 7.3 | 13.0 | 18.5 | 15.2 | 400 | 800 | 400 | 3.0 | PMR205AB6250M200R30 |
| 0.25 | 350 | 7.3 | 13.0 | 18.5 | 15.2 | 400 | 800 | 400 | 3.0 | PMR205AB6250M350R30 |
| 0.25 | 600 | 7.3 | 13.0 | 18.5 | 15.2 | 400 | 800 | 400 | 3.0 | PMR205AB6250M600R30 |
| 0.33 | 47 | 7.8 | 13.5 | 18.5 | 15.2 | 400 | 800 | 400 | 3.3 | PMR205AB6330M047R30 |
| 0.47 | 22 | 7.6 | 14.0 | 24.0 | 20.3 | 250 | 1500 | 250 | 4.0 | PMR205AC6470M022R30 |
| 0.47 | 33 | 7.6 | 14.0 | 24.0 | 20.3 | 250 | 1500 | 250 | 4.0 | PMR205AC6470M033R30 |
| 0.47 | 47 | 7.6 | 14.0 | 24.0 | 20.3 | 250 | 1500 | 250 | 4.0 | PMR205AC6470M047R30 |
| 0.47 | 68 | 7.6 | 14.0 | 24.0 | 20.3 | 250 | 1500 | 250 | 4.0 | PMR205AC6470M068R30 |
| 0.47 | 100 | 7.6 | 14.0 | 24.0 | 20.3 | 250 | 1500 | 250 | 4.0 | PMR205AC6470M100R30 |
| 0.47 | 150 | 7.6 | 14.0 | 24.0 | 20.3 | 250 | 1500 | 250 | 4.0 | PMR205AC6470M150R30 |
| 0.47 | 220 | 7.6 | 14.0 | 24.0 | 20.3 | 250 | 1500 | 250 | 4.0 | PMR205AC6470M220R30 |
| 0.47 | 330 | 7.6 | 14.0 | 24.0 | 20.3 | 250 | 1500 | 250 | 4.0 | PMR205AC6470M330R30 |
| 0.47 | 470 | 9.0 | 15.0 | 24.0 | 20.3 | 200 | 1200 | 250 | 5.0 | PMR205AC6470M470R30 |
| 0.47 | 680 | 11.3 | 16.5 | 24.0 | 20.3 | 150 | 1000 | 180 | 7.0 | PMR205AC6470M680R30 |
| 1.0 | 33 | 10.6 | 16.1 | 30.5 | 25.4 | 150 | 1000 | | 8.6 | PMR205AE7100M033R30 |
| 1.0 | 47 | 11.3 | 16.5 | 24.0 | 20.3 | 150 | 1000 | | 7.0 | PMR205AC7100M047R30 |
| 1.0 | 68 | 11.3 | 16.5 | 24.0 | 20.3 | 150 | 1000 | | 7.0 | PMR205AC7100M068R30 |
| 1.0 | 100 | 11.3 | 16.5 | 24.0 | 20.3 | 150 | 1000 | | 7.0 | PMR205AC7100M100R30 |
| 1.0 | 150 | 11.3 | 16.5 | 24.0 | 20.3 | 150 | 1000 | | 7.0 | PMR205AC7100M150R30 |
| 1.0 | 220 | 11.3 | 16.5 | 24.0 | 20.3 | 150 | 1000 | | 7.0 | PMR205AC7100M220R30 |

ORDERING INFORMATION

The article code for the standard part is given in the article table. For other options, see page 11.

MARKING

- RIFA
- RIFA article code
- RC unit
- Rated capacitance and resistance
- Rated voltage
- MP, for metallized paper
- Climatic category according to IEC 60068-1, appendix A
- Passive flammability class
- Circuit diagram
- Manufacturing code (year, month)

Statements of suitability for certain applications are based on our knowledge of typical operating conditions for such applications, but are not intended to constitute – and we specifically disclaim – any warranty concerning suitability for a specific customer application or use. This Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by us with reference to the use of our products is given gratis, and we assume no obligation or liability for the advice given or results obtained.