Radial Leaded Capacitors

Commercial Grade Capacitors – RDE 25/50/100VDC

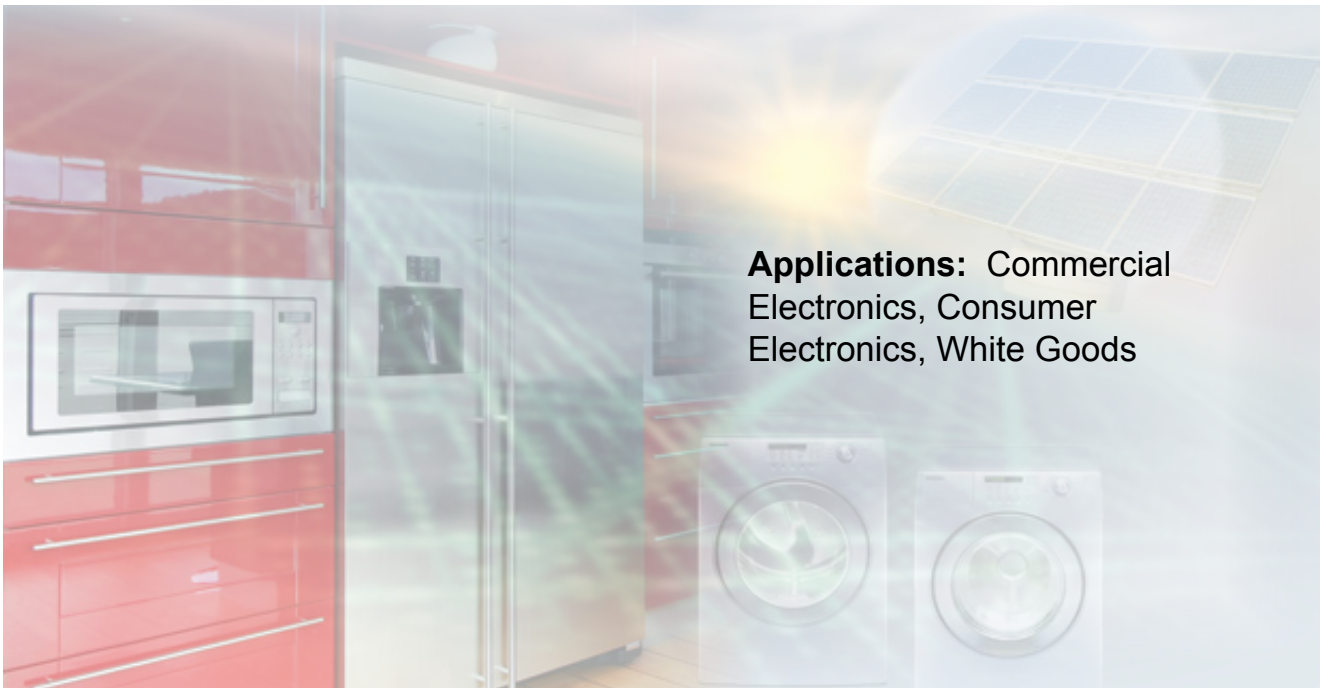
RDE Series

RDE Product Summary

RDE Series: The RDE, radial leaded, epoxy coated monolithic ceramic capacitor has been designed for commercial applications. Murata Electronics North America, Inc. has added a lineup of 25, 50 and 100VDC RDE components in C0G, X7R, X7S and Y5V TC's to the existing 250 and 630VDC, X7R RDE series. All RDE's are RoHS compliant and have an epoxy coating and tin/copper plated radial leads. The commercial grade RDE's are designed for general use electronics applications and not for automotive powertrain and safety (ABS, Air Bag, etc) applications. They are a cost effective alternative to our automotive grade RPE series for noncritical applications.

Features:

- **Case Size**: 0, 1, 2, 3 and W (See dimensions table on back for details.)
- **Body Size**: The 0 & 1 size RDE products are the smallest leaded devices offered by Murata.
- **Lead Spacing**: 2.5 +/- 0.8mm, 5.0 +/- 0.8mm
- **Voltage**: 25, 50 and 100VDC
- **Cap Range**: See "Capacitance Range" Chart on page 2
- **Base Metal Inner Electrodes**: Copper plating + Ni plating + Sn plated terminations
- **Body Coating**: Epoxy coated body with Tin/Copper coated Radial Leads
- **Tolerance**: [J]=+/-5% for C0G, [K]=+/-10% for X7R and X7S and [Z]=+80/-20% for Y5V
- **Temp. Characteristics**: C0G (-55 to 125°C, +/- 30ppm/°C), X7R (-55 to125°C, +/- 15%), X7S (-55 to125°C, +/- 22%) and Y5V (-30 to 85°C, +22/- 82%)



Applications: Commercial Electronics, Consumer Electronics, White Goods

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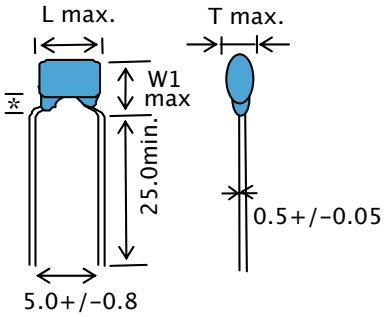
RDE Data Sheet

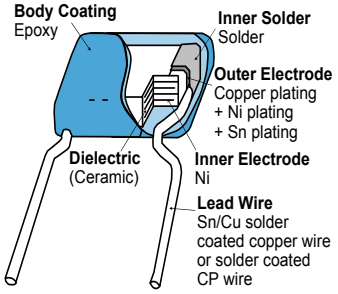


Dimensions (mm max)

Size Code	L	W1	T
0	4.0	6.0	2.5
1	4.5	5.0	3.15
2	5.5	6.0	3.15
3	5.5	7.5	4.0
W	5.5	10.0	4.0

* Coating Extension does not exceed the end of the lead bend.

Structure



Capacitance Range

Size Code	TC	WV	Capacitance Range	pF / uF
0	C0G	50V	10pF to 1000pF (E12)	10pF to 1000pF (E12)
		100V	10pF to 1000pF (E12)	10pF to 1000pF (E12)
0	X7R	25V	0.1uF	0.1uF
0		50V	220pF to 0.1uF	220pF to 0.1uF
1			0.15uF to 0.47uF	0.15uF to 0.47uF
2			0.68uF to 2.2uF	0.68uF to 2.2uF
3			3.3uF	3.3uF
0		100V	1000pF to 0.022uF	1000pF to 0.022uF
1			0.033uF to 0.47uF	0.033uF to 0.47uF
2			1uF	1uF
0	X7S	25V	0.22uF to 1uF	0.22uF to 1uF
1			2.2uF	2.2uF
2			4.7uF, 10uF	4.7uF, 10uF
3			22uF	22uF
W			47uF	47uF
2		50V	4.7uF	4.7uF
3		100V	2.2uF	2.2uF
W			4.7uF	4.7uF
0	Y5V	50V	0.01uF to 0.1uF	0.01uF to 0.1uF

Global Part Numbering

RDE	R7	1H	104	K	0	K1	C03	B
①	②	③	④	⑤	⑥	⑦	⑧	⑨

① Type Name

Name	Coated Material
RDE	Epoxy Coating

② Temperature Characteristics

Code	Temp. Char.	Operating Temp. Range	Capacitance Change
5C	C0G	-55 to 125℃	0+/-30ppm/℃
R7	X7R	-55 to 125℃	+15/-15%
C7	X7S	-55 to 125℃	+22/-22%
F5	Y5V	-30 to 85℃	+22/-82%

③ Rated Voltage

Code	Rated Voltage
1E	25V
1H	50V
2A	100V

④ Capacitance

Capacitance Step
See Part Number List

⑤ Capacitance Tolerance

Code	Tolerance
J	+/-5%
K	+/-10%
M	+/-20%
Z	+80/-20%

⑥ Dimensions (L x W)

Code	L x W
0	4.0 x 6.0mm
1	4.5 x 5.0mm
2	5.5 x 6.0mm
3	5.5 x 7.5mm
W	5.5 x 10.0mm

⑦ Lead Configuration & Space

Code	Lead Configuration	Lead Space
P1	Outside-crimp Bulk	F=2.5mm
S1	Outside-crimp Taping	F=2.5mm
K1	Incrimp Long Bulk	F=5.0mm
M1	Incrimp Taping	F=5.0mm

⑧ Individual Specification Code

⑨ Packaging

Code	Package Type	Size Code	Std. Pack Qty.
B	Bulk	0 - 3	500 pcs.
A	Ammo Pack	0 - 3	2000 pcs.*1

*1 Confirm detail specifications

RDE Series

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