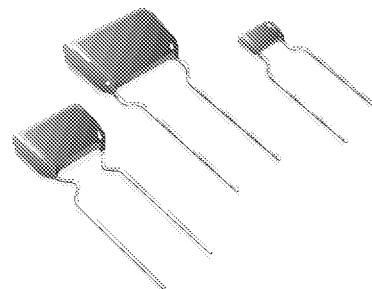


Ceramic Multilayer Radial Leaded Capacitor

Series: ECU-S
Type: COG



■ Features

- Good thermal stability
- High insulation resistance
- Low dissipation factor
- Low inductance

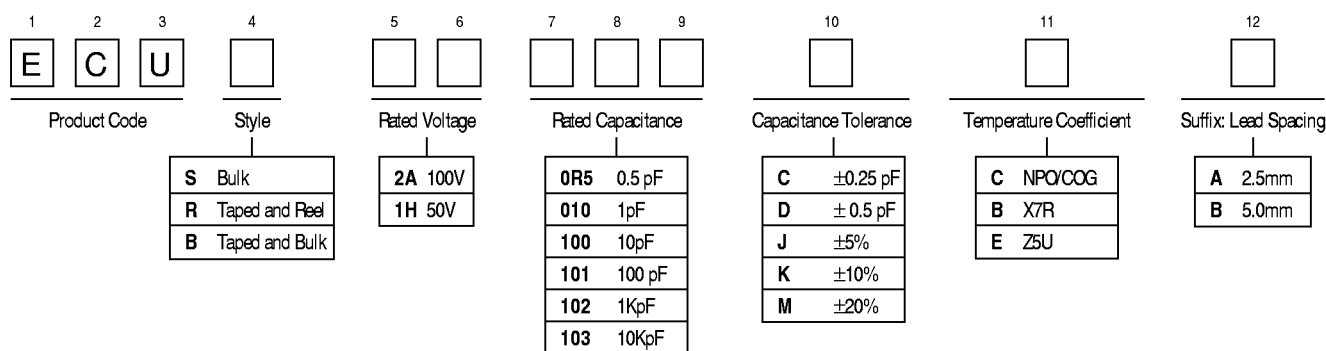
■ Applications

- Resonant circuits
- Filter circuits
- Timing elements
- Coupling and filtering, particularly in RF circuits

■ Major Specifications

Operating temperature range	-55°C to 125°C	Q factor/dissipation factor	≤ 15%
Rated voltage	50 VDC, 100 VDC	Insulation resistance	100,000 MΩ or (1,000 MΩ x μF ₀ , whichever is less)
Capacitance range	50 VDC: 100–47,000 pF 100 VDC: 4.7–220 pF	Endurance test (1,000 hrs.)	150% rated VDC at 125°C
Capacitance tolerance	±0.5 pF, ±5%, ±10%	Temperature coefficient	0±30ppm/°C
Dielectric strength	200% rated VDC for 10 s		

■ Explanation of Part Numbers



■ Terminals

- Parallel wire leads, iron-nickel, thinned
- Crimped leads
- Non-standard lead lengths on request

■ Marking

- Rated capacitance, tolerance, manufacturer's logo, ceramic material, voltage

■ Packing

Optionally:

- Taped (reel or ammo pack)
- Bulk

■ Maximum ratings

- Climactic category in accordance with IEC 68-1: 55/125/56

Available capacitance tolerances

Rated capacitance	Tolerance	Symbol
CR < 10 pF	$\Delta C_R = \pm 0,5$ pF	D ¹
	$\Delta C_R = \pm 1,0$ pF	F
CR ≥ 10 pF	$\Delta C_R/C_R = \pm 5\%$	J ¹
	$\Delta C_R/C_R = \pm 10\%$	K

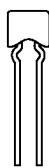
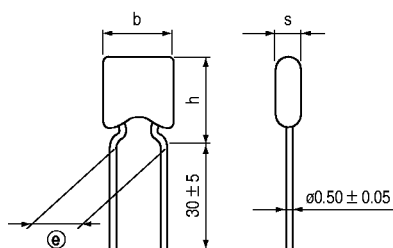
Rated voltage values

V_R = 50 V², 100V

¹ Standard tolerance

² Also suitable for 63V applications

■ Dimensions in mm (not to scale)



Lead spacing $\text{Ⓢ} = 2.5^{+0.6}_{-0.1}$ mm
 h max. = 5.5
 b max. = 5.0
 s max. = 2.5

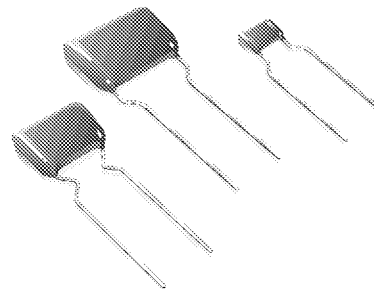


Lead spacing $\text{Ⓢ} = 5.0^{+0.6}_{-0.1}$ mm
 h max. = 5.5
 b max. = 5.0
 s max. = 2.5

Ceramic Multilayer Radial Leaded Capacitor

Series: ECU-S

Type: X7R



■ Features

- High volumetric efficiency
- Non-linear capacitance change
- High insulation resistance
- High pulse strength

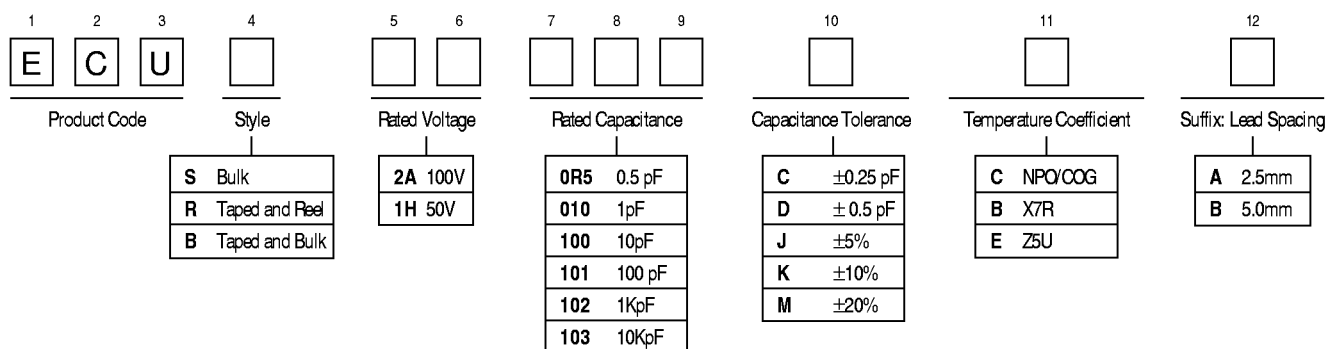
■ Applications

- Blocking
- Coupling
- Decoupling
- Interference suppression

■ Major Specifications

Operating temperature range	-55°C to 125°C	Q factor/dissipation factor	≤2.5%
Rated voltage	50 VDC, 100 VDC	Insulation resistance	50,000 MΩ or (500 mΩ x μF), whichever is less
Capacitance range	50 VDC: 3,300–100,000 pF 100 VDC: 220–33,000 pF	Endurance test (1,000 hrs.)	150% rated VDC at 125°C
Capacitance tolerance	±10%, ±20%	Temperature coefficient	±15%
Dielectric strength	200% rated VDC for 10s		

■ Explanation of Part Numbers



■ Terminals

- Parallel wire leads, iron-nickel, tinned
- Crimped leads
- Non-standard lead lengths on request

■ Marking

- Rated capacitance, tolerance, manufacturer's logo, ceramic material, voltage

■ Packing

Optionally:

- Taped (reel or ammo pack)
- Bulk

■ Maximum ratings

- Climactic category in accordance with IEC 68-1: 55/125/56

Available capacitance tolerances

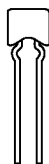
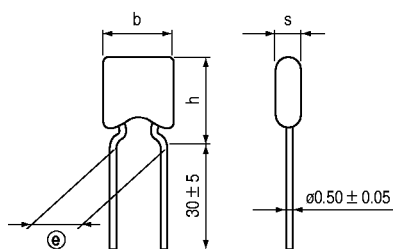
Tolerance	Symbol
$\Delta C_R/C_R = \pm 10\%$	K
$\Delta C_R/C_R = \pm 20\%$	M

Rated voltage values

$V_R = 50 V^1, 100V$

¹ Also suitable for 63V applications

■ Dimensions in mm (not to scale)



Lead spacing $\text{Ⓢ} = 2.5^{+0.6}_{-0.1}$ mm
 h max. = 5.5
 b max. = 5.0
 s max. = 2.5

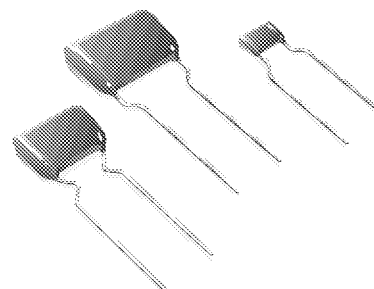


Lead spacing $\text{Ⓢ} = 5.0^{+0.6}_{-0.1}$ mm
 h max. = 5.5
 b max. = 5.0
 s max. = 2.5

Ceramic Multilayer Radial Leaded Capacitor

Series: ECU-S

Type: Z5U (Y5U)



■ Features

- Extremely high volumetric efficiency
- Non-linear capacitance change

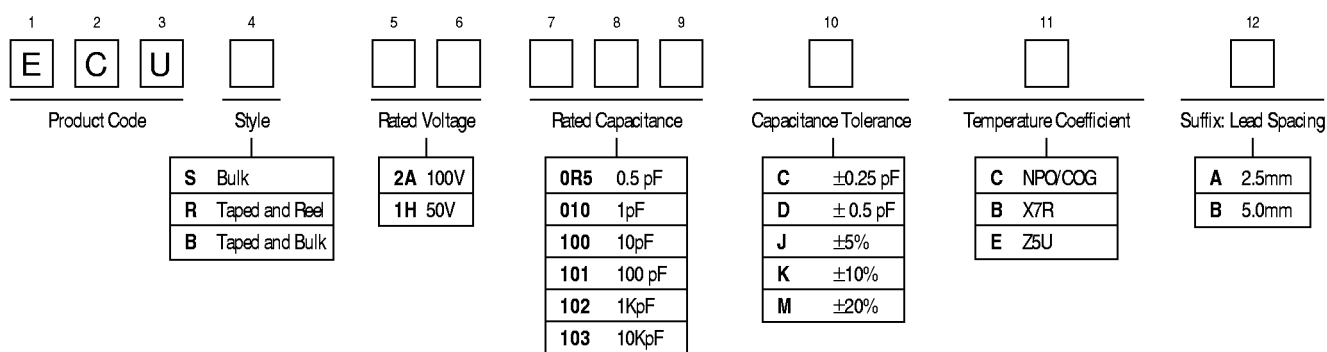
■ Applications

- Blocking
- Coupling
- Decoupling
- Interference suppression

■ Major Specifications

Operating temperature range	+10°C to 85°C	Q factor/dissipation factor	≤ 4.0%
Rated voltage	50 VDC	Insulation resistance	10,000 MΩ or (10 μΩ x μF), whichever is less
Capacitance range	0.1 μF - 2.2 μF	Endurance test (1,000 hrs.)	125% rated VDC at 85°C
Capacitance tolerance	20%	Temperature coefficient	±22% / -55%
Dielectric strength	150% rated VDC for 10 s		

■ Explanation of Part Numbers



■ Terminals

- Parallel wire leads, iron-nickel, tinned
- Crimped leads
- Non-standard lead lengths on request

■ Marking

- Rated capacitance, tolerance, manufacturer's logo, ceramic material, voltage

■ Packing

Optionally:

- Taped (reel or ammo pack)
- Bulk

■ Maximum ratings

- Climactic category in accordance with IEC 68-1: 55/125/56

Available capacitance tolerances

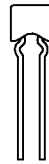
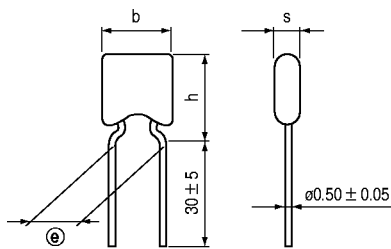
$\Delta C_R / C_R = \pm 20\%$, symbol M

Rated voltage values

$V_R = 50 V^1$

¹ Also suitable for 63V applications

■ Dimensions in mm (not to scale)



Lead spacing $\text{Ⓜ} = 2.5^{+0.6}_{-0.1}$ mm
 h max. = 5.5
 b max. = 5.0
 s max. = 2.5



Lead spacing $\text{Ⓜ} = 5.0^{+0.6}_{-0.1}$ mm
 h max. = 5.5
 b max. = 5.0
 s max. = 2.5