

Resistors Product Change Notification

PCN Number	PCN-2025-RBU15
PCN Title	EOL Announcement – RC70-RC70P families
PCN Date	11 th November 2025
Type of Change	<input checked="" type="checkbox"/> End of Life Notification <input type="checkbox"/> Material Change <input type="checkbox"/> Manufacturing Facility Change or Addition <input type="checkbox"/> Process Change <input type="checkbox"/> Datasheet Specification Change <input type="checkbox"/> Design Change <input type="checkbox"/> Other:
Manufacturing Location(s) Affected	TT Electronics Bedlington
Date of Change Implementation	11 th of November 2025

Products Affected	
TT Series	Datasheet Link
RC70	https://www.ttelectronics.com/TTElectronics/media/ProductFiles/Datasheet/RC.pdf
RC70P	https://www.ttelectronics.com/TTElectronics/media/ProductFiles/Datasheet/RCP.pdf

Change Detail	
Description of Change	TT Electronics is announcing that the families RC70-RC70P are being taken End of Life, (EOL). This applies ONLY RC70 and RC70P family. Families RC55, RC65 and RC55P, RC65P will continue to be available in all the variants.
Reason for Change	Declining volumes do not justify long-term manufacture of this product group.
Implementation Plan	A Last Time Buy is not available
Customer Impact	All part numbers of RC70-RC70P families are EOL and unavailable to order from TT Electronics.
Recommendations	Please contact your local Sales / FAE team for assistance in selecting the best alternative product.
Availability of Previously Manufactured Product	N/A
Availability of Approval Samples	N/A
Sales Contacts	Americas: Shannon Rosene shannon.rosene@ttelectronics.com Europe: Simon Webb simon.webb@ttelectronics.com Asia: Praveen Kumar Praveen.Kumar@ttelectronics.com

Approvals			
	Name	Title	Date
Issued by	Mario Garsi	Product Line Manager	11 th November 2025
Approved by	Adam Royles	Product Line Director	11 th November 2025
Approved by	Klaus Zwerschina	VP Sales	11 th November 2025



Features:

- RC55 available to EN140101 & IECQ-CECC40101 release
- Resistance tolerance down to 0.05%
- Wide resistance range
- Low noise and negligible voltage coefficient
- Screened parts available for critical applications
- Temperature coefficient of resistance down to 5ppm/°C
- Options for Pb-free and Pb-bearing wire finishes



All Pb-free parts comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

Electrical Data

RC Actual Data		RC55	RC65
Power rating @70°C	W	0.4	0.5
Resistance range	ohms	1R0 – 4M0	
Limiting element voltage	V	350	500
Isolation voltage	V	500	750
TCR (20 - 70°C) ¹	ppm/°C	5, 10, 15, 25, 50, 100	
Resistance tolerance ¹	%	0.05, 0.1, 0.25, 0.5, 1	
Standard values ²		E24 & E96 preferred	
Thermal impedance	°C/W	110	70
Ambient temperature range	°C	-55 to 155	

Note 1: See table of resistance restrictions.

Note 2: Non-standard values may be requested.

The requirements of the following standards are met or exceeded by the corresponding RC series products above.

EN140101-806 Requirements		B		
Required power rating @70°C	W	0.4		
Qualified resistance range	ohms	56R – 820K		
Required limiting element voltage	V	300		
Required isolation voltage	V	500		
Required TCR ¹	ppm/°C	10, 15, 25, 50		
Required resistance tolerance	%	0.1, 0.25, 0.5, 1		

IECQ-CECC 40101-004 Requirements		H	J	K
Required power rating @70°C	W	0.063	0.125	0.25
Qualified resistance range	ohms	1R0 – 1M0		
Required limiting element voltage	V	200	250	
Required isolation voltage	V	280	350	
Required TCR ¹	ppm/°C	15, 25, 50, 100		
Required resistance tolerance	%	0.05, 0.1, 0.25, 0.5, 1		

IECQ-CECC 40101-804 Requirements		A	B
Required power rating @70°C	W	0.125	0.25
Qualified resistance range	ohms	1R0 – 1M0	
Required limiting element voltage	V	200	250
Required isolation voltage	V	280	350
Required TCR ¹	ppm/°C	15, 25, 50	
Required resistance tolerance	%	0.1, 0.25, 0.5, 1	

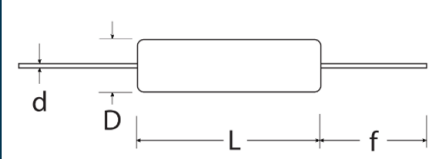
Note 1: In these standards TCRs are not specified for values <5R0, and for values ≥5R0 and <10R the TCR limit is 2 x the stated figure.

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

Physical Data

Dimensions in mm and weight in g							
Type	L max ¹	D max	f min ²	d nom	PCB mounting centres	Min. bend radius	Wt. nom
RC55	7.2	2.5	30	0.6	10.2	0.6	0.24
RC65	10	3.7	30	0.6	12.7	0.6	0.4



Note 1: Coating may extend up to 2mm along each lead.

Note 2: Dimension relates only to bulk packed products.

Construction

A metal film is deposited onto a high quality ceramic rod. Nickel-plated steel caps are force fitted to the rod and termination wires are welded to the caps. The resistor is adjusted to value by a helical cut in the film and the body is protected with a specially formulated epoxy coating.

Marking

Type reference, TCR code, resistance value and tolerance code are legend marked. The resistance values conform to IEC 60062.

Terminations

Terminations are copper wire with Sn or SnPb finish. They meet the strength requirements of IEC 60115-1 clause 9.5 and the solderability requirements of IEC 60115-1 clause 11.1.

Solvent Resistance

The body protection and marking are resistant to all normal industrial cleaning solvents suitable for printed circuit boards.

Performance Data

		EN140101-806 Requirements	IECQ-CECC 40101-004 Requirements	IECQ-CECC 40101-804 Requirements	Actual Performance	
					Maximum ^{1,2}	Typical
Load at full rated power: P _r for 1000 hours at 70°C	±ΔR%	Not specified			0.3	0.1
Load at EN140101 & IECQ-CECC40101 ratings: 1000 hours at 70°C	±ΔR%	0.25 ³	0.5 ³	0.5 ³	0.3	0.05
Dry heat: No load, 1000 hours at 155°C	±ΔR%	0.25 ³	0.5 ³	0.5 ³	1	0.15
Shelf-life test: 12 months at room temperature	±ΔR%	Not specified			0.1	0.03
Derating from rated power at 70°C		Zero @125°C	Zero @155°C	50% @125°C	50% @125°C, zero @155°C	
Short term overload: Lesser of 6.25xP _r or 2.5xLEV for 5s	±ΔR%	0.5 ²	0.1 ²	0.1 ³	0.1	0.02
Climatic	±ΔR%	0.25 ³	0.5 ³	0.5 ³	0.3	0.1
Climatic category		55/125/56	55/155/56	55/125/56	55/155/56	
Long term damp heat	±ΔR%	0.25 ³	0.5 ³	0.5 ³	0.5	0.1
Temperature rapid change	±ΔR%	0.05 ²	0.1 ²	0.1 ²	0.2	0.05
Resistance to solder heat	±ΔR%	0.05 ²	0.1 ²	0.1 ²	0.06	0.03
Vibration	±ΔR%	0.05 ²	0.1 ²	0.1 ²	0.06	0.02
Bump	±ΔR%	Not specified			0.06	0.02
Noise in a decade of frequency	μV/V	<0.5	Not specified		1	0.1
Voltage coefficient of resistance	ppm/V	Not specified				<1

Note 1: All values within the qualified resistance range meet EN140101 and IECQ-CECC40101 requirements.

Note 2: Apply an ohmic addition of R01.

Note 3: Apply an ohmic addition of R05.

Temperature Derating

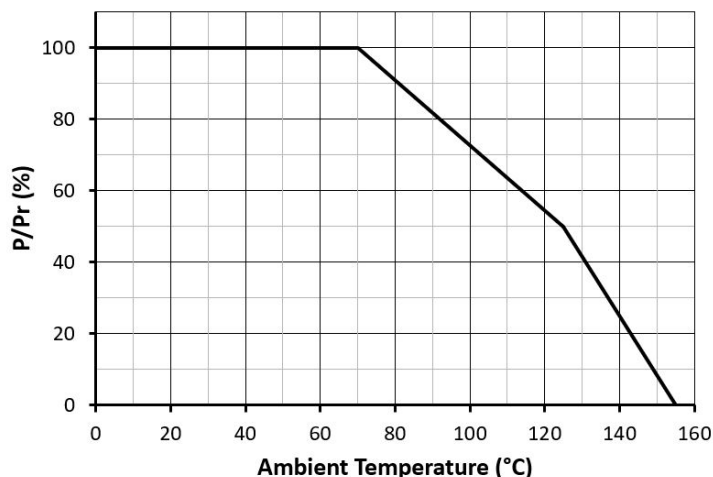


Table of Resistance Restrictions

TCR ppm/°C	Tolerance %					
	RC55			RC65		
	0.05	0.1 - 0.25	0.5 ³ - 1 ³	0.05	0.1 - 0.25	0.5 ³ - 1 ³
5 ¹	10R to 500K		1R0 to 500K	10R to 500K		1R0 to 500K
10	10R to 1M0	10R to 1M0	1R0 to 1M0	10R to 1M0	10R to 1M0	1R0 to 1M0
15			5R0 to 1M0		1R0 to 2M0	
25		10R to 2M0	1R0 to 4M0		5R0 to 2M0	1R0 to 2M0
50 ²			1R0 to 2M0		1R0 to 4M0	
100 ²			1R0 to 2M0		1R0 to 4M0	

Note 1: Based on sampling. 100% screened product is available.

Note 2: For maximum availability, where the ohmic value permits, 25ppm/°C is preferred to 50 or 100ppm/°C.

Note 3: For maximum availability, where the ohmic value permits, 0.25% is preferred to 0.5 or 1%.

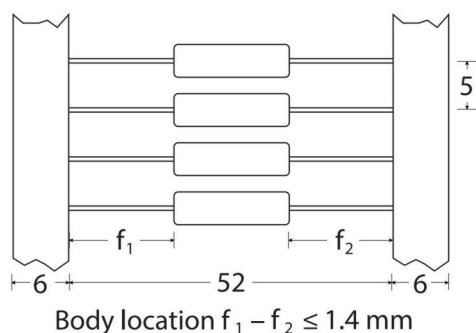
Application Notes

Matched Sets

TT Electronics has many years' experience in the supply of matched sets of precision resistors. Resistors can be supplied matched for tolerance and TCR down to ±0.02% and ±2ppm/°C.

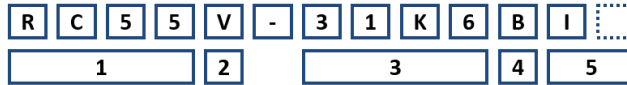
Packaging

RC55 and RC65 standard packing is in tape, as shown below. Taped resistors on reel or loose packed components can also be supplied by special request.



Ordering Procedure

Global Part Number Example: RC55V-31K6BI (RC55 with TCR $\pm 5\text{ppm}/^\circ\text{C}$ at 31.6 kilohms $\pm 0.1\%$, Pb-free)



1	2	3	4	5		
Type	TCR (ppm/°C)	Value	Tolerance	Finish, Screening & Packing		
RC55	V = ± 5	E24 = 3/4 characters	W = $\pm 0.05\%$	I	Pb-free (RoHS)	
RC65	T = ± 10	E96 = 3/4 characters R = ohms K = kilohms M = megohms	B = $\pm 0.1\%$	SC	Pb-free with screened TCR (5ppm only)	
	Y = ± 15		C = $\pm 0.25\%$	PB	Sn(95)Pb(5) finish	
	D = ± 25		D = $\pm 0.5\%$	HL	Sn(60)Pb(40) high lead finish	
	C = ± 50		F = $\pm 1\%$	All above in Standard Packing		
	Z = ± 100				RC55	Ammo
			RC65	Up to 2500/box		

Note: For product released to EN140101 or CECC40101, follow the MPN with text indicating the relevant release and style. For CECC40101-004 the style includes a TCR code which is the same as that used in the MPN. Note that this additional text does not form part of our MPN.

Examples: **RC55Y-31K6BI** EN140101-806 B
RC55Y-31K6BI CECC40101-004 JY

For CECC 40101-804 the TCR codes T and E are used in the style for 15 and 25ppm/°C, coded in the MPN as **Y** and **D** respectively. Also an additional suffix **-804** is added after, or in the case of Pb-free, instead of, the Finish, Screening & Packing code.

Examples: **RC55Y-31K6B-804** CECC 40101-804 BT
RC55D-31K6BPB-804 CECC 40101-804 AE

Legacy Part Numbers

This product has a legacy part number format. This is still available for ordering, but for new designs use of the Global Part Number is recommended.

Legacy Part Number Example: RC55LFV3162BA (RC55 with TCR $\pm 5\text{ppm}/^\circ\text{C}$ at 31.6 kilohms $\pm 0.1\%$, Pb-free)



1	2	3	4	5	6		
Type ¹	Termination	TCR (ppm/°C)	Value	Tolerance	Packing		
RC55	Omit for	V = ± 5	3 digits + multiplier	A = $\pm 0.05\%$	A	RC55	Ammo, up to 5000/box
RC65	Sn(95)Pb(5)	T = ± 10	R = ohms for values <100 ohms	B = $\pm 0.1\%$		RC65	Ammo, up to 2500/box
	LF = Pb-free	Y = ± 15		C = $\pm 0.25\%$			
		D = ± 25		D = $\pm 0.5\%$			
		C = ± 50		F = $\pm 1\%$			
	Z = ± 100						

Note 1: The optional family prefix RC- may be used, e.g. RC-RC55.

Note 2: For product released to EN140101 or CECC40101 the global part number must be used – see above for details.

Features:

- Precision resistors with uprated power
- Low TCRs over a wide resistance range
- Tolerance down to 0.05%
- Low noise and negligible voltage coefficient
- Options for Pb-free and Pb-bearing wire finishes



All Pb-free parts comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

Electrical Data

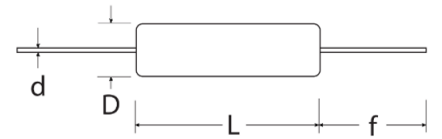
		RC55P	RC65P
Power rating @70°C	W	0.5	1.0
Resistance range	ohms	1R0 – 4M0	
Limiting element voltage	V	350	500
Isolation voltage	V	500	
TCR (20 - 70°C) ¹	ppm/°C	5, 10, 15, 25, 50, 100	
Resistance tolerance ¹	%	0.05, 0.1, 0.25, 0.5	
Standard values ²		E24 & E96 preferred	
Thermal impedance	°C/W	110	70
Ambient temperature range	°C	-55 to 155	

Note 1: See table of resistance restrictions.

Note 2: Non-standard values may be requested.

Physical Data

Dimensions in mm and weight in g							
Type	L max ¹	D max	f min ²	d nom	PCB mounting centres	Min. bend radius	Wt. nom
RC55P	7.2	2.5	30	0.6	10.2	0.6	0.24
RC65P	10	3.7	30	0.6	12.7	0.6	0.4



Note 1: Coating may extend up to 2mm along each lead.

Note 2: Dimension relates only to bulk packed products.

Construction

A metal film is deposited onto a high quality ceramic rod. Nickel-plated steel caps are force fitted to the rod and termination wires are welded to the caps. The resistor is adjusted to value by a helical cut in the film and the body is protected with a specially formulated epoxy coating.

Marking

Type reference, TCR code, resistance value and tolerance code are legend marked. The resistance values conform to IEC 60062.

Terminations

Terminations are copper wire with Sn or SnPb finish. They meet the strength requirements of IEC 60115-1 clause 9.5 and the solderability requirements of IEC 60115-1 clause 11.1.

Solvent Resistance

The body protection and marking are resistant to all normal industrial cleaning solvents suitable for printed circuit boards.

Performance Data

		RC55P Values $\geq 10R$ & $\leq 100K$		Other Values / Sizes	
		Maximum	Typical	Maximum ¹	Typical
Load at rated power: P_r for 1000 hours at 70°C	$\pm\Delta R\%$	0.1	0.03	0.5	0.1
Dry heat: No load, 1000 hours at 155°C	$\pm\Delta R\%$	0.3	0.1	1	0.15
Shelf-life test: 12 months at room temperature	$\pm\Delta R\%$	0.015	0.003	0.1	0.03
Derating from rated power at 70°C		Zero @155°C			
Short term overload: Lesser of $6.25xP_r$ or $2.5xLEV$ for 5s	$\pm\Delta R\%$	0.5	0.005	0.1	0.02
Climatic	$\pm\Delta R\%$	0.25	0.05	0.3	0.1
Climatic category		55/155/56			
Long term damp heat	$\pm\Delta R\%$	0.25	0.05	0.5	0.1
Temperature rapid change	$\pm\Delta R\%$	0.04	0.02	0.2	0.05
Resistance to solder heat	$\pm\Delta R\%$	0.02	0.003	0.06	0.03
Vibration	$\pm\Delta R\%$	0.2	0.002	0.06	0.02
Bump	$\pm\Delta R\%$	0.2	0.002	0.06	0.02
Noise in a decade of frequency	$\mu V/V$	0.1	0.03	1	0.1
Voltage coefficient of resistance	ppm/V	-	<1	-	<1

Note 1: Apply an ohmic addition of R01 for values <10R.

Table of Resistance Restrictions

TCR ppm/°C	Tolerance %					
	RC55P			RC65P		
	0.05	0.1 - 0.25	0.5 ³	0.05	0.1 - 0.25	0.5 ³
5 ¹	10R to 500K		1R0 to 500K	10R to 500K		1R0 to 500K
10	10R to 1M0	10R to 1M0	1R0 to 1M0	10R to 1M0	10R to 1M0	1R0 to 1M0
15					5R0 to 1M0	
25		10R to 2M0	1R0 to 2M0		5R0 to 2M0	1R0 to 2M0
50 ²					1R0 to 4M0	
100 ²				1R0 to 2M0		

Note 1: Based on sampling. 100% screened product is available.

Note 2: For maximum availability, where the ohmic value permits, 25ppm/°C is preferred to 50 or 100ppm/°C.

Note 3: For maximum availability, where the ohmic value permits, 0.25% is preferred to 0.5 or 1%.

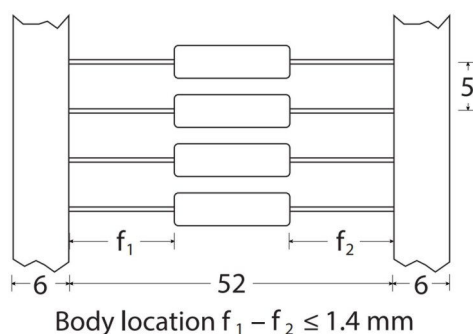
Application Notes

Matched Sets

TT Electronics has many years' experience in the supply of matched sets of precision resistors. Resistors can be supplied matched for tolerance and TCR down to $\pm 0.02\%$ and $\pm 2\text{ppm}/^\circ\text{C}$.

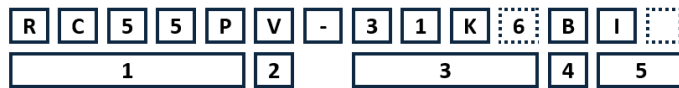
Packaging

RC55P and RC65P standard packing is in tape, as shown below. Taped resistors on reel or loose packed components can also be supplied by special request.



Ordering Procedure

Example: RC55PV-31K6BI (RC55P with TCR $\pm 5\text{ppm}/^\circ\text{C}$ at 31.6 kilohms $\pm 0.1\%$, Pb-free)



1	2	3	4	5	
Type	TCR (ppm/ $^\circ\text{C}$)	Value	Tolerance	Finish, Screening & Packing	
RC55P	V = ± 5	E24 = 3/4 characters	W = $\pm 0.05\%$	I	Pb-free (RoHS)
RC65P	T = ± 10	E96 = 3/4 characters R = ohms K = kilohms M = megohms	B = $\pm 0.1\%$	SC	Pb-free with screened TCR (5ppm only)
	Y = ± 15		C = $\pm 0.25\%$	PB	Sn(95)Pb(5) finish
	D = ± 25		D = $\pm 0.5\%$	All above in Standard Packing	
	C = ± 50		RC55P	Ammo	Up to 5000/box
	Z = ± 100		RC65P		Up to 2500/box

Part Number
RC70Y-154RBI