

Listing of PCNs

Introduction

This file contains PCN information for the product(s) referenced by the file name.

Note that the file may contain multiple PCNs. If this is the case, they are arranged in chronological order, so to see the most recent PCN scroll to the end.

Resistors Product Change Notification

PCN Number	PCN-2023-RBU07
PCN Title	Datasheet Update – RC55 Series
PCN Date	25 th April 2023
Type of Change	<input type="checkbox"/> End of Life Notification <input type="checkbox"/> Manufacturing Facility Change or Addition <input checked="" type="checkbox"/> Datasheet Specification Change <input type="checkbox"/> Other: <input checked="" type="checkbox"/> Material Change <input type="checkbox"/> Process Change <input checked="" type="checkbox"/> Design Change
Manufacturing Location(s) Affected	TT Electronics Bedlington
Date of Change Implementation	25 th April 2023

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

Change Detail	
Description of Change	Update to the RC Series Datasheet to reflect changes to the lower resistance value & tolerance limits applying to the RC55 size only. There will be no change to the product form, fit or function and this PCN is for notification only. See Appendix 1 for details.
Reason for Change	To ensure the datasheet is in line with current manufacturing process capability.
Implementation Plan	With immediate effect
Customer Impact	Product form, fit or function is unchanged. The RC55 lower resistance value is restricted to 10ohms for 0.1% and 0.25% tolerances only.
Recommendations	Please contact your local Sales / FAE team for assistance if required.
Availability of Previously Manufactured Product	N/A
Availability of Approval Samples	N/A
Sales Contacts	Americas: Kevin Marzano kevin.marzano@ttelectronics.com Europe: Claudia Patzak-Kruger Claudia.patzak@ttelectronics.com Asia: Janson Chuen janson.chuen@ttelectronics.com

Approvals			
	Name	Title	Date
Issued by	Mark Beeston	Product Line Manager	25th April 2023
Approved by	Heather Baird	VP Product Management	25th April 2023
Approved by	Klaus Zwerschina	VP Sales	25th April 2023

Appendix 1

Before Version

Table of Resistance Restrictions

TCR ppm/°C	Tolerance %								
	RC55			RC65			RC70		
	0.05	0.1 - 0.25	0.5 ¹ - 1 ²	0.05	0.1 - 0.25	0.5 ¹ - 1 ²	0.05	0.1 - 0.25	0.5 ¹ - 1 ²
5 ¹	10R to 500K		1R0 to 500K	10R to 500K		1R0 to 500K	10R to 750K		
10	10R to 1M0	10R to 1M0	1R0 to 1M0	10R to 1M0	10R to 1M0	1R0 to 1M0	10R to 1M0	10R to 1M0	1R0 to 1M0
15		2R49 to 1M0	1R0 to 1M0		5R0 to 1M0	1R0 to 1M0		10R to 2M0	1R0 to 2M0
25		2R49 to 2M0	1R0 to 2M0		5R0 to 2M0	1R0 to 2M0		10R to 5M0	1R0 to 5M0
50 ²		1R0 to 2M0	1R0 to 4M0		1R0 to 2M0	1R0 to 4M0		5R0 to 10M	1R0 to 10M
100 ²									

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%.

After Version

RC Series

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 1M0		5R0 to 1M0	1R0 to 1M0
25		10R to 2M0	1R0 to 2M0		5R0 to 2M0	1R0 to 2M0
50 ²		10R to 2M0	1R0 to 4M0		1R0 to 2M0	1R0 to 4M0
100 ²						

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%.

List of P/Ns affected

RC55C-3R0CI	RC55PD-4R0CI	RC55Y-2R7BI	RC55Y-5R6BI
RC55D-4R3CI	RC55PD-5R1BI	RC55Y-3R3BI	RC55Y-6R65BI
RC55D-4R87BI	RC55PD-8R0BI	RC55Y-3R92BI	RC55Y-6R8BI
RC55D-4R87CI	RC55PD-8R0CI	RC55Y-3R9BI	RC55Y-8R2BI
RC55D-5R6BI	RC55V-5R1BI	RC55Y-4R7BI	
RC55PC-5R1BI	RC55V-5R1CI	RC55Y-5R0BI	
RC55PD-2R0CI	RC55Y-2R49BI	RC55Y-5R11BI	

Resistors Product Change Notification

PCN Number	PCN-2025-RBU02
PCN Title	Removal of EN/IECQ-CECC from some CR, MFR & RC Types
PCN Date	28 th February 2025
Type of Change	<input type="checkbox"/> End of Life Notification <input type="checkbox"/> Manufacturing Facility Change or Addition <input checked="" type="checkbox"/> Datasheet Specification Change <input type="checkbox"/> Other: <input type="checkbox"/> Material Change <input type="checkbox"/> Process Change <input type="checkbox"/> Design Change
Manufacturing Location(s) Affected	TT Electronics Bedlington - Welwyn (UK)
Date of Change Implementation	1 st of March 2025

Products Affected	
TT Series	Datasheet Link
RC-65 RC-70 MFR5 CR2010 CR2512	https://www.ttelectronics.com/TTElectronics/media/ProductFiles/Datasheet/RC.pdf https://www.ttelectronics.com/TTElectronics/media/ProductFiles/Datasheet/MFR.pdf https://www.ttelectronics.com/TTElectronics/media/ProductFiles/Datasheet/CR.pdf

Change Detail	
Description of Change	TT Electronics is removing the option of EN or IECQ-CECC release from the products listed in APPENDIX A. The products are still available with commercial release. Please note that products with commercial release are in no way different from those which have been supplied with EN or IECQ-CECC release. Furthermore, there will be no change at all to any of the products, the processes, or the locations of manufacture.
Reason for Change	The demand for EN or IECQ-CECC release on the affected products is too low to justify the continued maintenance of this option.
Implementation Plan	N/A
Customer Impact	<p>In most cases the requirement for EN or IECQ-CECC release is not reflected in our MPN, so no MPN changes are required as a result of this PCN. The one exception is IECQ-CECC40101-804 (RC series), where the part number adopts the suffix 804. Any RC65 part numbers with the suffix 804 will be obsolete. The commercial released alternatives in this case are, for example:</p> <ul style="list-style-type: none"> RC65Y-31K6B-804 (Pb-free terminations) may be replaced by RC65Y-31K6BI RC65Y-31K6BPB-804 (SnPb terminations) may be replaced by RC65Y-31K6BPB.
Recommendations	
Availability of Previously Manufactured Product	N/A

Availability of Approval Samples	N/A
Sales Contacts	Americas: Greg Hawkins greg.hawkins@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	21 st February 2025
Approved by	Klaus Zwerschina	VP Sales	21 st February 2025

Appendix A

<u>Product Series</u>	<u>Product Type</u>	<u>Standards to which Release is no longer offered</u>
<u>RC</u>	RC65	EN140101-806, IECQ-CECC40101-004, IECQ-CECC40101-804
	RC70	IECQ-CECC40101-004, IECQ-CECC40101-804
<u>MFR</u>	MFR5	IECQ-CECC40101-019, IECQ-CECC40101-803
<u>CR</u>	CR2010	IECQ-CECC40401-008
	CR2512	IECQ-CECC40401-008

Note also that EN or IECQ-CECC release is still available for the following product types which are in the same series as those listed above: RC55, MFR4, CR0805 and CR1206.

Appendix B

RC Series

-Former Data Sheet Release:

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

EN140101-806 Requirements		B	C
Power rating @70°C	W	0.4	0.5
Qualified resistance range	ohms	56R – 820K	56R – 1M0
Limiting element voltage	V	300	500
Isolation voltage	V	500	750
TCR ¹	ppm/°C	10, 15, 25, 50	
Resistance tolerance	%	0.1, 0.25, 0.5, 1	

IECQ-CECC 40101-004 Requirements		H	J	K	L
Power rating @70°C	W	0.063	0.125	0.25	0.5
Qualified resistance range	ohms	1R0 – 1M0		10R – 1M0	
Limiting element voltage	V	200		250	350
Isolation voltage	V	280		350	500
TCR ¹	ppm/°C	15, 25, 50, 100			
Resistance tolerance	%	0.05, 0.1, 0.25, 0.5, 1			

IECQ-CECC 40101-804 Requirements		A	B	C
Power rating @70°C	W	0.125	0.25	0.5
Qualified resistance range	ohms	1R0 – 1M0		10R – 1M0
Limiting element voltage	V	200	250	350
Isolation voltage	V	280	350	500
TCR ¹	ppm/°C	15, 25, 50		
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.

-New Data Sheet Release:

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

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.

MFR Series

-Former Data Sheet Release:

IECQ-CECC 40101 - 019 Requirements		FZ	FX	EZ	EX
Power rating at 70°C	watts	0.25	0.25	0.5	0.5
Resistance range	ohms	1 to 1M	1 to 1M	10 to 1M0	10 to 1M
Limiting element voltage	volts	250	250	350	350
TCR	ppm/°C	100	250	100	250
		5.1 to 9.1 : 200	5.1 to 9.1 : 500		
Resistance tolerance	%	1	1	1	1

IECQ-CECC 40101 - 803 Requirements		BC	BK	CC	CK
Power rating at 70°C	watts	0.125	0.125	0.25	0.25
Resistance range	ohms	10 to 1M	10 to 1M	10 to 1M	10 to 1M
Limiting element voltage	volts	200	200	250	250
TCR	ppm/°C	50	100	50	100
Resistance tolerance	%	0.5, 1	0.5, 1	0.5, 1	0.5, 1

These tables indicate the CECC specification requirements, and these are met or exceeded by the corresponding MFR series products.

-New Data Sheet Release:

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

IECQ-CECC 40101-019 Requirements		FZ	FX
Required power rating @ 70°C	W	0.25	
Qualified resistance range	ohms	1R0 – 1M0	
Required limiting element voltage	V	250	
Required TCR	ppm/°C	≥5R1 - ≤9R1: 200, >9R1: 100	≥5R1 - ≤9R1: 500, >9R1: 250
Required resistance tolerance	%	1	

IECQ-CECC 40101-803 Requirements		BC	BK
Required power rating @ 70°C	W	0.125	
Qualified resistance range	ohms	10R – 1M0	
Required limiting element voltage	V	200	
Required TCR	ppm/°C	50	100
Required resistance tolerance	%	0.5, 1	

CR Series

-Former Data Sheet Release:

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

EN140401-802 Requirements		RR2012M		RR3216M	
Power rating at 70°C	W	0.125		0.25	
Resistance range	Ω	1R5 – 10M		1R5 – 10M	
Limiting element voltage	V	150		200	
TCR -55 to +125°C	ppm/°C	<10R: 200, 10R-1M0: 100, >1M0: 200			
Resistance tolerance	%	<10R: 5, 10R-1M0: 1, 2, 5, >1M0: 5			
Ambient temperature range	°C	-55 to +125			

IECQ-CECC 40401-004 Requirements		CR0805		CR1206	
Power rating at 70°C	W	0.125		0.25	
Resistance range	Ω	1R0 – 10M		1R0 – 10M	
Limiting element voltage	V	100		200	
TCR -55 to +125°C	ppm/°C	<10R: 200, 10R-1M0: 100, >1M0: 200			
Resistance tolerance	%	1, 2, 5			
Ambient temperature range	°C	-55 to +125			

IECQ-CECC 40401-008 Requirements		CR0603 ¹	CR0805	CR1206	CR2010	CR2512
Power rating at 70°C	W	0.1	0.125	0.25	0.5	1
Resistance range	Ω	1R0 – 10M		1R0 – 10M	1R0 – 1M0	
Limiting element voltage	V	75	100	200	400	500
TCR -55 to +155°C	ppm/°C	<10R: 200, 10R-1M0: 100, >1M0: 250				
Resistance tolerance	%	0.5, 1, 2, 5		0.1, 0.25, 0.5, 1, 2, 5		0.25, 0.5, 1, 2, 5
Ambient temperature range	°C	-55 to +155				

Note 1: CR0603 meets the requirements of IECQ-CECC 40401-008. Certification pending.

IECQ-CECC 40401-003 Requirements		CR0805		CR1206	
Power rating at 70°C	W	0.063		0.125	
Resistance range	Ω	1R0 – 3M0		1R0 – 5M0	
Limiting element voltage	V	100		200	
TCR -55 to +125°C	ppm/°C	<5R0: 500, 5R0-10R: 350, 10R-3M0: 100, >3M0: 250			
Resistance tolerance	%	0.5, 1, 2, 5			
Ambient temperature range	°C	-55 to +125			

-New Data Sheet Release:

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

The requirements of the following standards are met or exceeded by the corresponding on product server:

EN140401-802 Requirements		RR2012M		RR3216M	
Required power rating at 70°C	W	0.125		0.25	
Qualified resistance range	Ω	1R5 – 10M		1R5 – 10M	
Required limiting element voltage	V	150		200	
Required TCR -55 to +125°C	ppm/°C	<10R: 200, 10R-1M0: 100, >1M0: 200			
Required resistance tolerance	%	<10R: 5, 10R-1M0: 1, 2, 5, >1M0: 5			
Required ambient temperature range	°C	-55 to +125		-55 to +125	

IECQ-CECC 40401-004 Requirements		CR0805		CR1206	
Required power rating at 70°C	W	0.125		0.25	
Qualified resistance range	Ω	1R0 – 10M		1R0 – 10M	
Required limiting element voltage	V	100		200	
Required TCR -55 to +125°C	ppm/°C	<10R: 200, 10R-1M0: 100, >1M0: 200			
Required resistance tolerance	%	1, 2, 5		1, 2, 5	
Required ambient temperature range	°C	-55 to +125		-55 to +125	

IECQ-CECC 40401-008 Requirements		CR0805		CR1206	
Required power rating at 70°C	W	0.125		0.25	
Qualified resistance range	Ω	1R0 – 10M		1R0 – 10M	
Required limiting element voltage	V	100		200	
Required TCR -55 to +155°C	ppm/°C	<10R: 200, 10R-1M0: 100, >1M0: 250			
Required resistance tolerance	%	0.1, 0.25, 0.5, 1, 2, 5			
Required ambient temperature range	°C	-55 to +155		-55 to +155	

IECQ-CECC 40401-003 Requirements		CR0805		CR1206	
Required power rating at 70°C	W	0.063		0.125	
Qualified resistance range	Ω	1R0 – 3M0		1R0 – 5M0	
Required limiting element voltage	V	100		200	
Required TCR -55 to +125°C	ppm/°C	<5R0: 500, 5R0-10R: 350, 10R-3M0: 100, >3M0: 250			
Required resistance tolerance	%	0.5, 1, 2, 5		0.5, 1, 2, 5	
Required ambient temperature range	°C	-55 to +125		-55 to +125	