

ELECTRONIC DESIGN TO DELIVERY INDEX

MAY 2023

Delivering insights for millions of electronic components and millions of daily user interactions across design, supply chain, and manufacturing.



Supply: Overview

MAY 2023

- The Industry Supply Index increased by 2 points this month totaling 159 points. This is the 22nd month-over-month gain in the ISI where the last low was seen in July 2021 at 72 points, for a total positive change of 121%.
- The largest category index lift was in the Connectors supply index with 7 points (4.4%), totaling 158 points. This is the first lift in the index after a short plateau seen from February - April 2023.
- Activity was mixed across all supply indices in May. Some of the notable increases were seen in Electromechanical (5 points), Integrated Circuits (5 points) and Sensors (5 points).
- Declines were reported in Passive Components (6 points), Optoelectronics (2 points) and Power Products (2 points). However, all three of these indices remain well above the 100 point baseline from January 2020.

MAY 2023

INDUSTRY INDEX

159

CHANGE
MONTH OVER MONTH

▲ 2

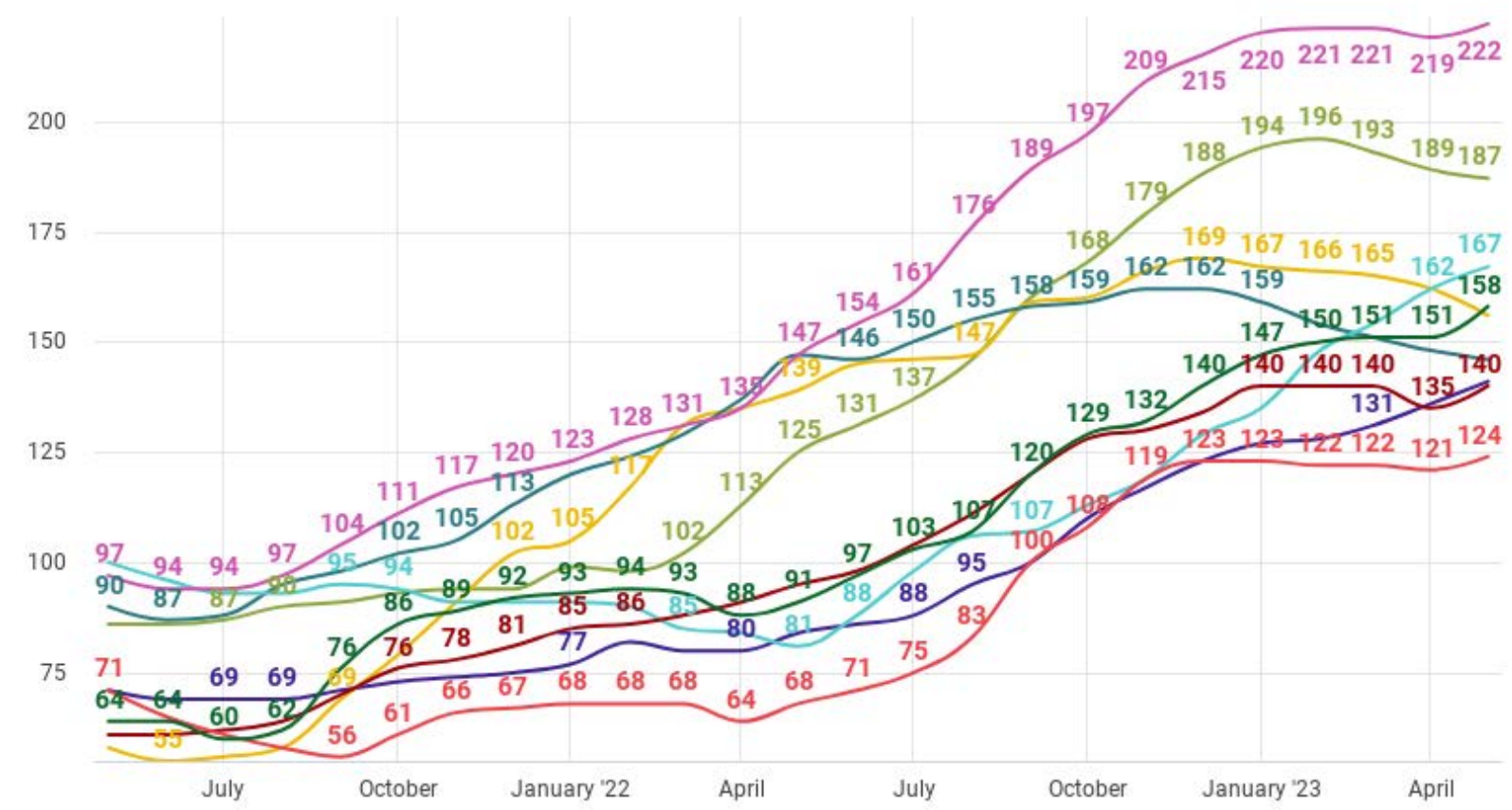
CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
Circuit Protection	222	▲	2
Connectors	158	▲	7
Discrete Semiconductors	124	▲	3
Electromechanical	140	▲	5
Integrated Circuits	167	▲	5
Optoelectronics	146	▼	2
Passive Components	156	▼	6
Power Products	187	▼	2
Sensors	141	▲	5



INDUSTRY SUPPLY INDEX



SUPPLY INDEX BY CATEGORY



Supply: Integrated Circuits

MAY 2023

- The Supply Index for Integrated Circuits increased by 5 points in May, a 3.1% positive change over last month for a total index value of 167 points. This lift continues a 12 month recovery with a total positive change of 106%.
- May reports positive changes in all subcategory indices, with Voltage Regulators - Linear and Voltage Regulators - Switching reporting the largest lifts with 13 points each.
- Other slight increases were seen in Amplifiers - Op Amps, Buffer, Instrumentation (3 points), Microcontrollers (3 points) and RF Receivers, Transceivers (2 points).
- The Microcontrollers supply index continues its slow recovery this month totaling 87 points. This category continues to be one watch as we see mixed activity in the subcategories driving movement in this index.

MAY 2023

ALL INTEGRATED CIRCUITS

CHANGE
MONTH OVER MONTH

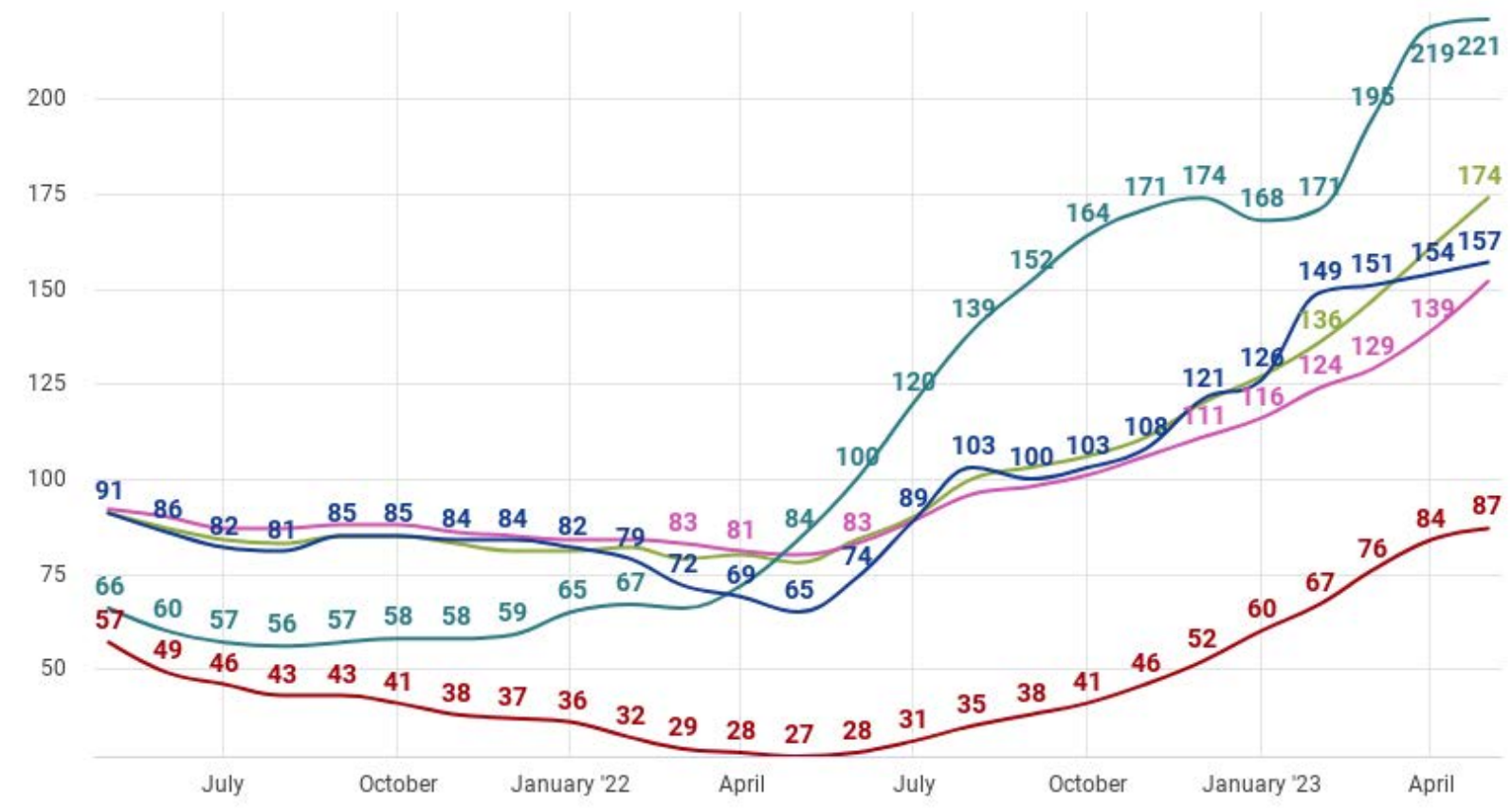
167 ▲ **5**

CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
Amplifiers - Op Amps, Buffer, Instrumentation	157	▲	3
Microcontrollers	87	▲	3
RF Receivers, Transceivers	221	▲	2
Voltage Regulators - Linear	152	▲	13
Voltage Regulators - Switching	174	▲	13

ALL INTEGRATED CIRCUITS SUPPLY INDEX



SUPPLY INDEX BY SUBCATEGORY



Supply: Passive Components

MAY 2023

- The Supply Index for Passive Components dropped 6 points (3.7%) in May. The total index value reported was 156 points. This is the 1st month of a decline after a brief plateau seen from January - April 2023.
- The largest index decline was in Chip SMD Capacitors with a 9 point (4.8%) drop, for a total index value of 156 points. This is the 1st month of a decline after a brief stall in movement for this index seen from December 2022 - April 2023.
- Other supply index declines seen were in Ceramic Capacitors (4 points), Fixed Inductors (4 points), and Tantalum Capacitors (1 point).
- Aluminum Electrolytic Capacitors reported the only increase this month of 8 points (6.3%), totaling 136 points. This increase adds to the steady rebound this index has reported since the last low in December 2021.

MAY 2023

ALL PASSIVE COMPONENTS

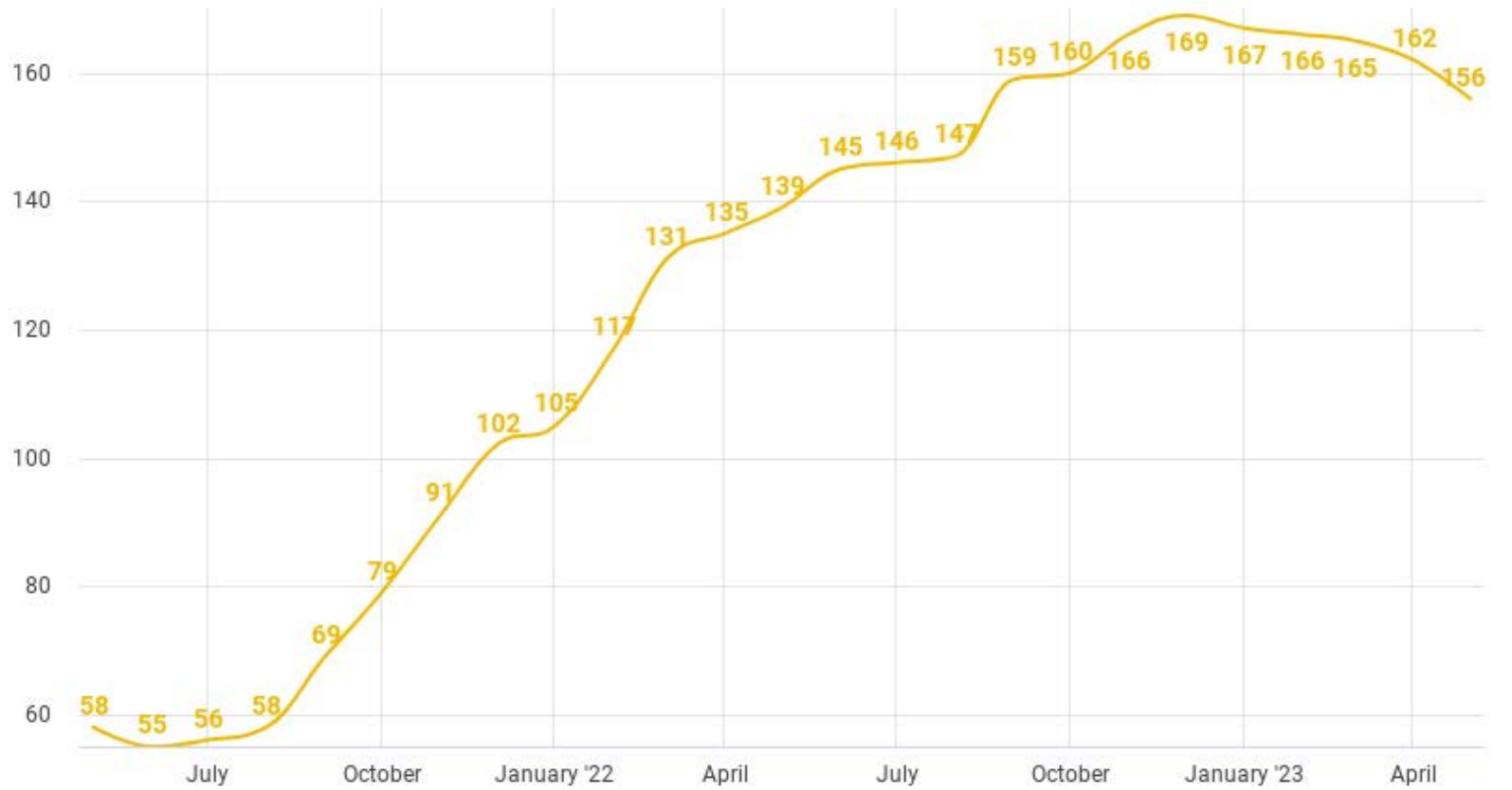
156

CHANGE
MONTH OVER MONTH

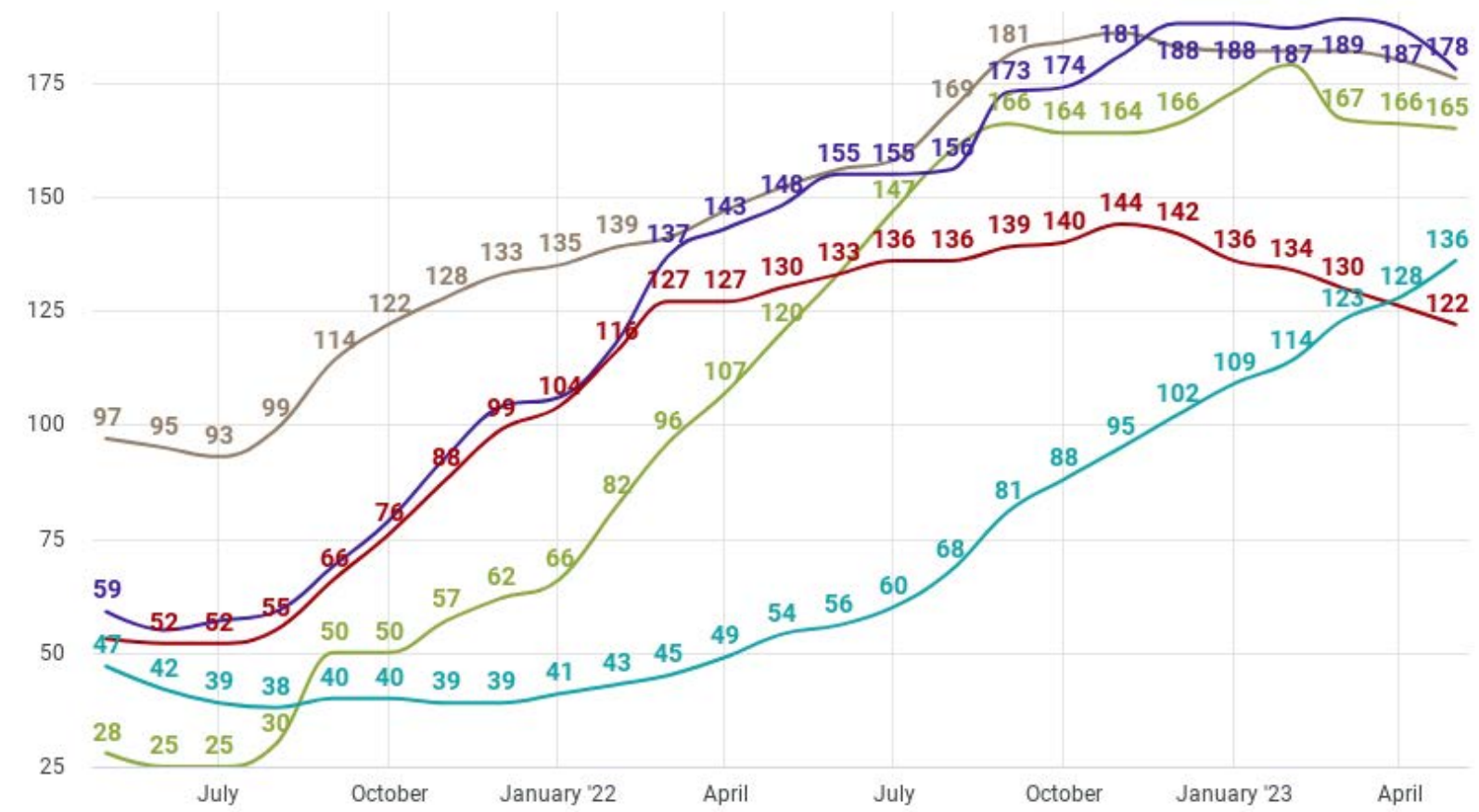
▼ **6**

CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
Aluminum Electrolytic Capacitors	136	▲	8
Ceramic Capacitors	122	▼	4
Chip SMD Resistors	178	▼	9
Fixed Inductors	176	▼	4
Tantalum Capacitors	165	▼	1

ALL PASSIVE COMPONENTS SUPPLY INDEX



SUPPLY INDEX BY SUBCATEGORY



Supply: Discrete Semiconductors

MAY 2023

- The Discrete Semiconductor Supply Index reported a small lift of 3 points, totaling 124 points this month. This is the 1st month of movement from the brief plateau trend seen from December 2022 - April 2023.
- The MOSFETs supply index reported a double-digit increase of 12 points (10.8%), for a total value of 124 points. Since April 2022, this supply index has reported a positive change of 151%.
- Other index increases were seen in Schottky Diodes (4 points) and Zener Diodes (4 points). The BJTs index remained flat at 108 points.
- A slight decline was seen in Rectifier Diodes of 1 point (0.72%). This slight change continues the plateau trend reported in this index which began in December 2022.

MAY 2023

ALL DISCRETE SEMICONDUCTORS

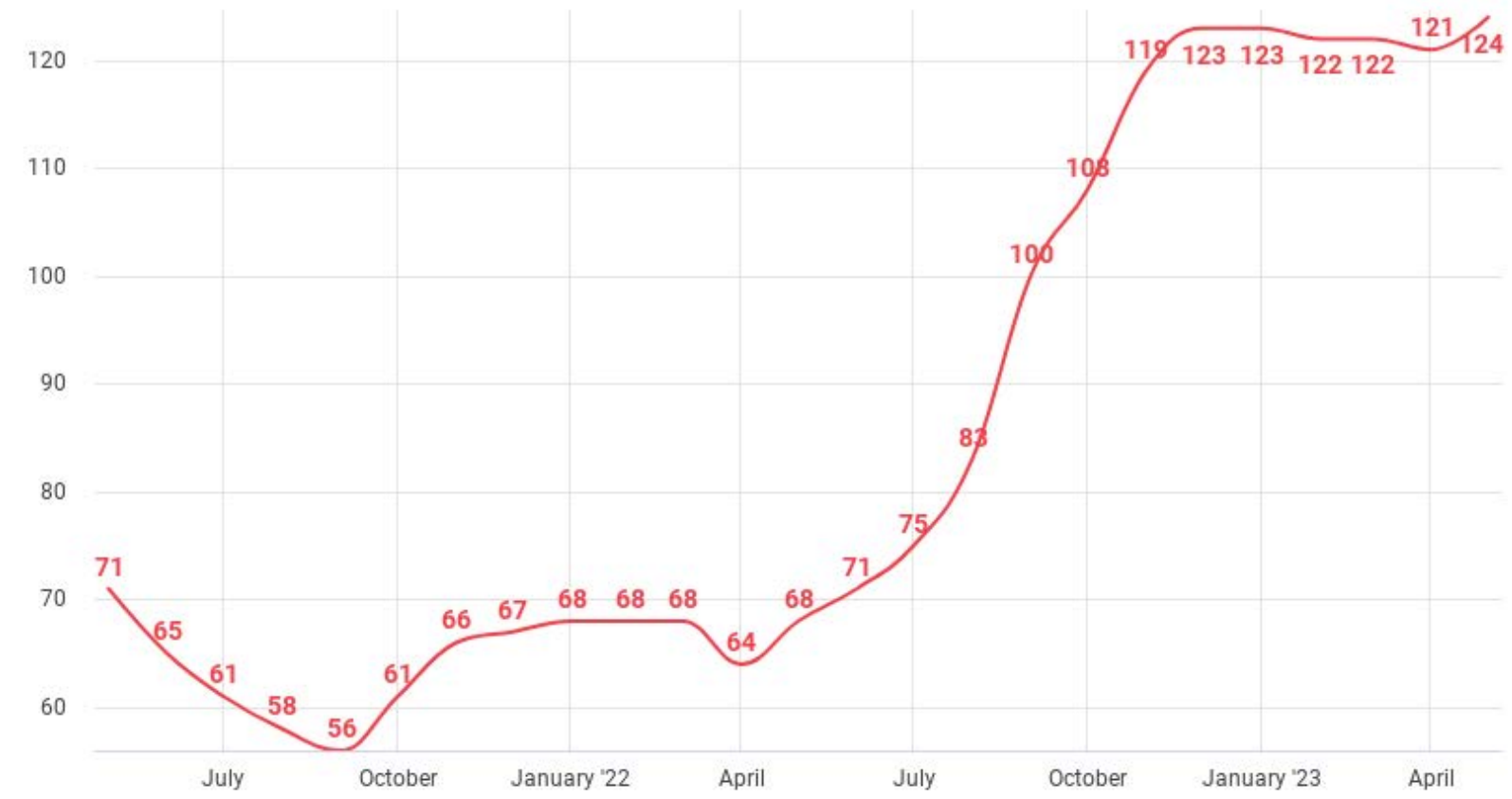
124

CHANGE
MONTH OVER MONTH

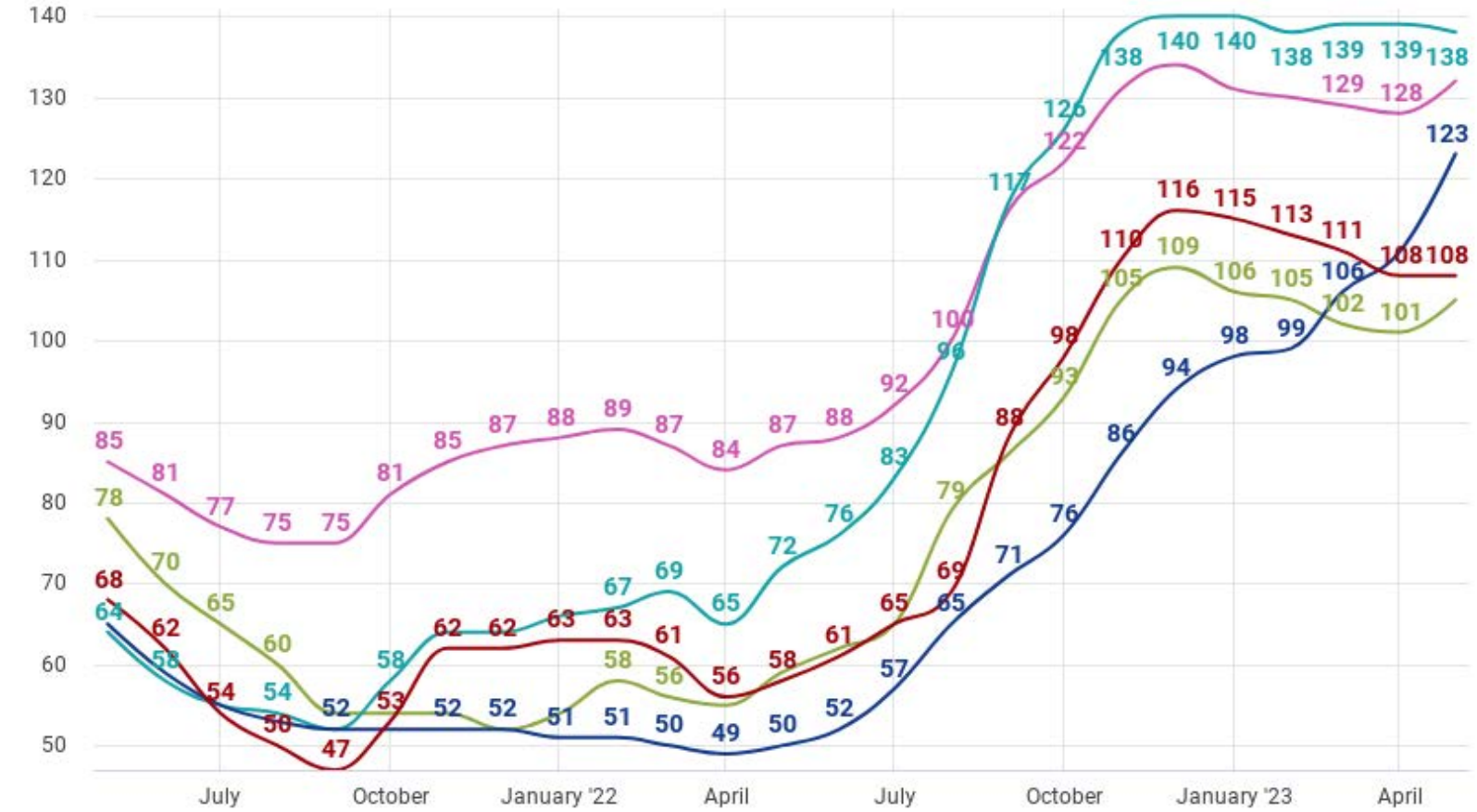
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CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
BJTs	108	▶	Flat
MOSFETs	123	▲	12
Rectifier Diodes	138	▼	1
Schottky Diodes	105	▲	4
Zener Diodes	132	▲	4

ALL DISCRETE SEMICONDUCTORS SUPPLY INDEX



SUPPLY INDEX BY SUBCATEGORY



Demand: Overview

MAY 2023

- The Industry Demand Index increased overall by 2 points (1.9%) this month to a total of 108 points. This is the first month of a slight incline since the last index value high in September 2022.
- The largest demand index decline reported was in Power Products with 4 points (3.4%). This is the 7th consecutive month of a decline since October 2022 for a total decrease of 40 points (26%).
- There was mixed sourcing activity across most indices, with a slight decrease seen in Integrated Circuits (1 point). Discrete Semiconductors and Sensors reported no change in May.
- Demand index increases were seen in Connectors (6 points), Optoelectronics (5 points), Passive Components (4 points), Electromechanical (3 points) and Circuit Protection (2 points).

MAY 2023

INDUSTRY INDEX

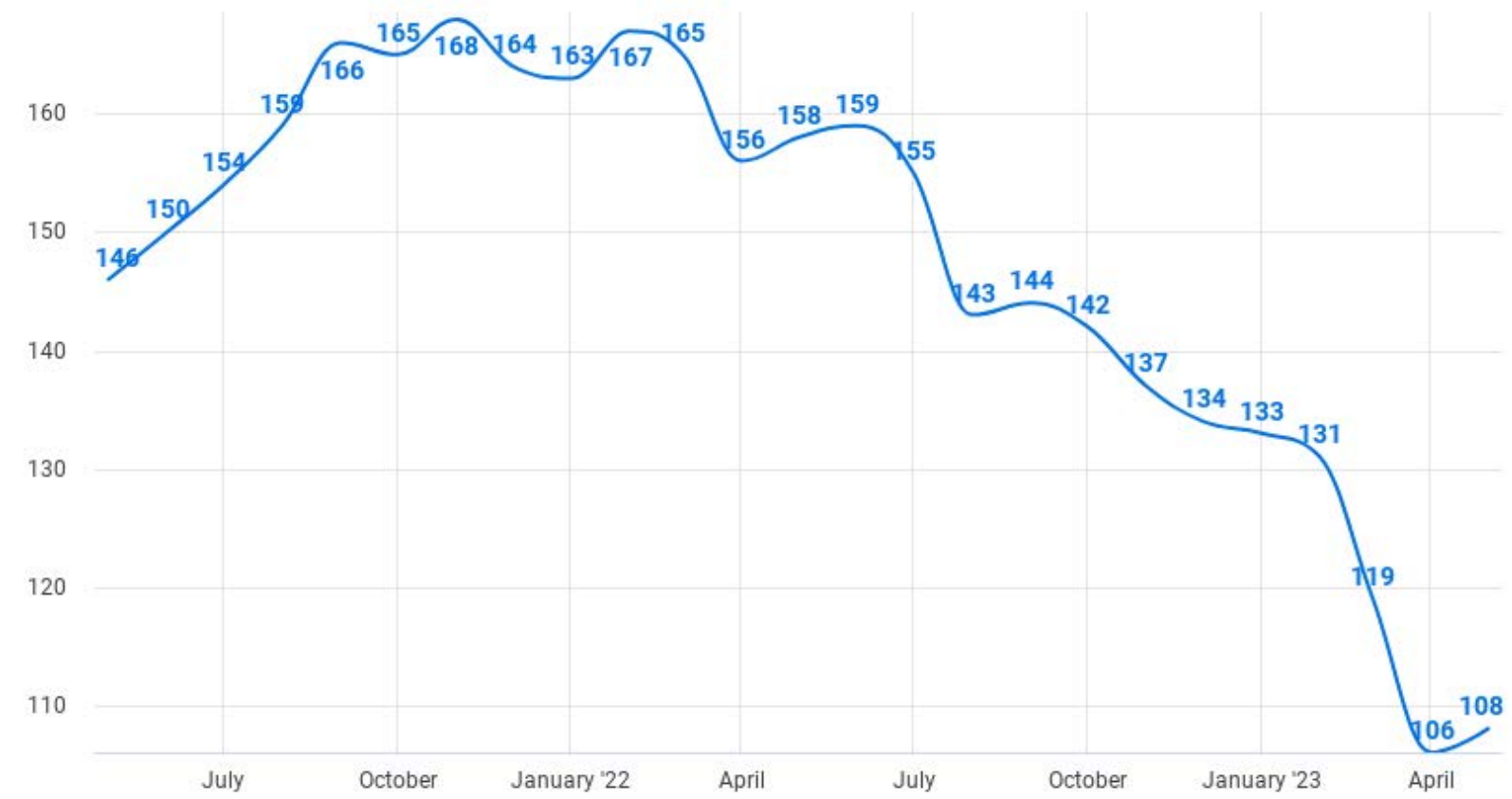
108

CHANGE
MONTH OVER MONTH

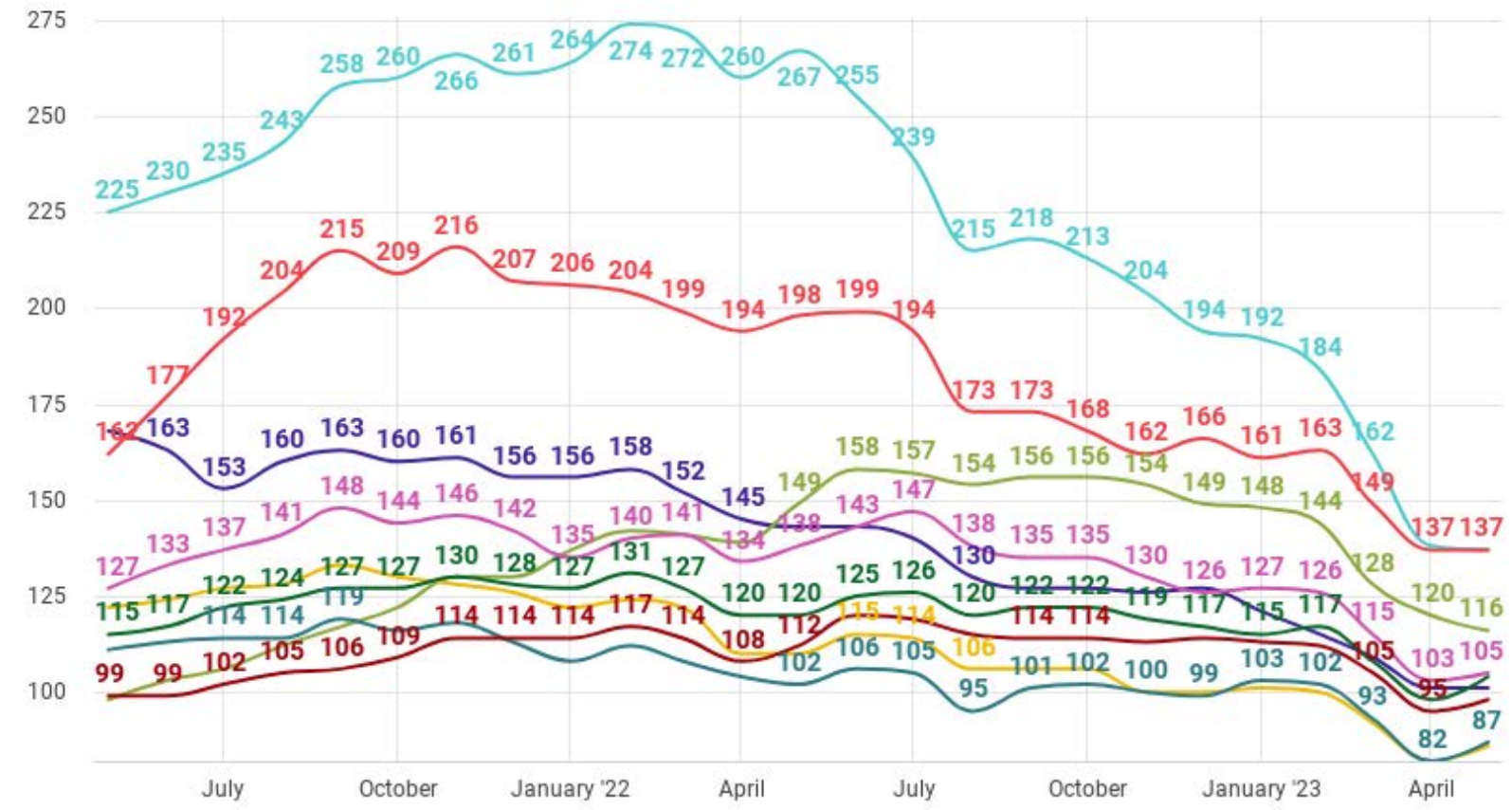
▲ **2**

CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
Circuit Protection	105	▲	2
Connectors	104	▲	6
Discrete Semiconductors	137	▶	Flat
Electromechanical	98	▲	3
Integrated Circuits	137	▼	1
Optoelectronics	87	▲	5
Passive Components	86	▲	4
Power Products	116	▼	4
Sensors	101	▶	Flat

INDUSTRY DEMAND INDEX



DEMAND INDEX BY CATEGORY



Demand: Integrated Circuits

MAY 2023

- The Demand Index for Integrated Circuits dropped 1 point in May, totaling 137 points. This slight decline is due to mixed changes across the subcategory indices.
- The largest demand index decrease was seen in Microcontrollers with a 11 point (5.7%) drop in May. This index value has experienced major shifts in normalizing due to the uptick on the supply index.
- Additional demand index decreases were seen in Amplifiers - Op Amps, Buffer, Instrumentation (5 points), Voltage Regulators - Linear (2 points) and Voltage Regulators - Switching (1 point).
- The only demand index increase was reported in RF Receivers, Transceivers with a 10 point (12.5%). This is the first change in direction for this demand index after a steady decline that started in February 2022.

MAY 2023

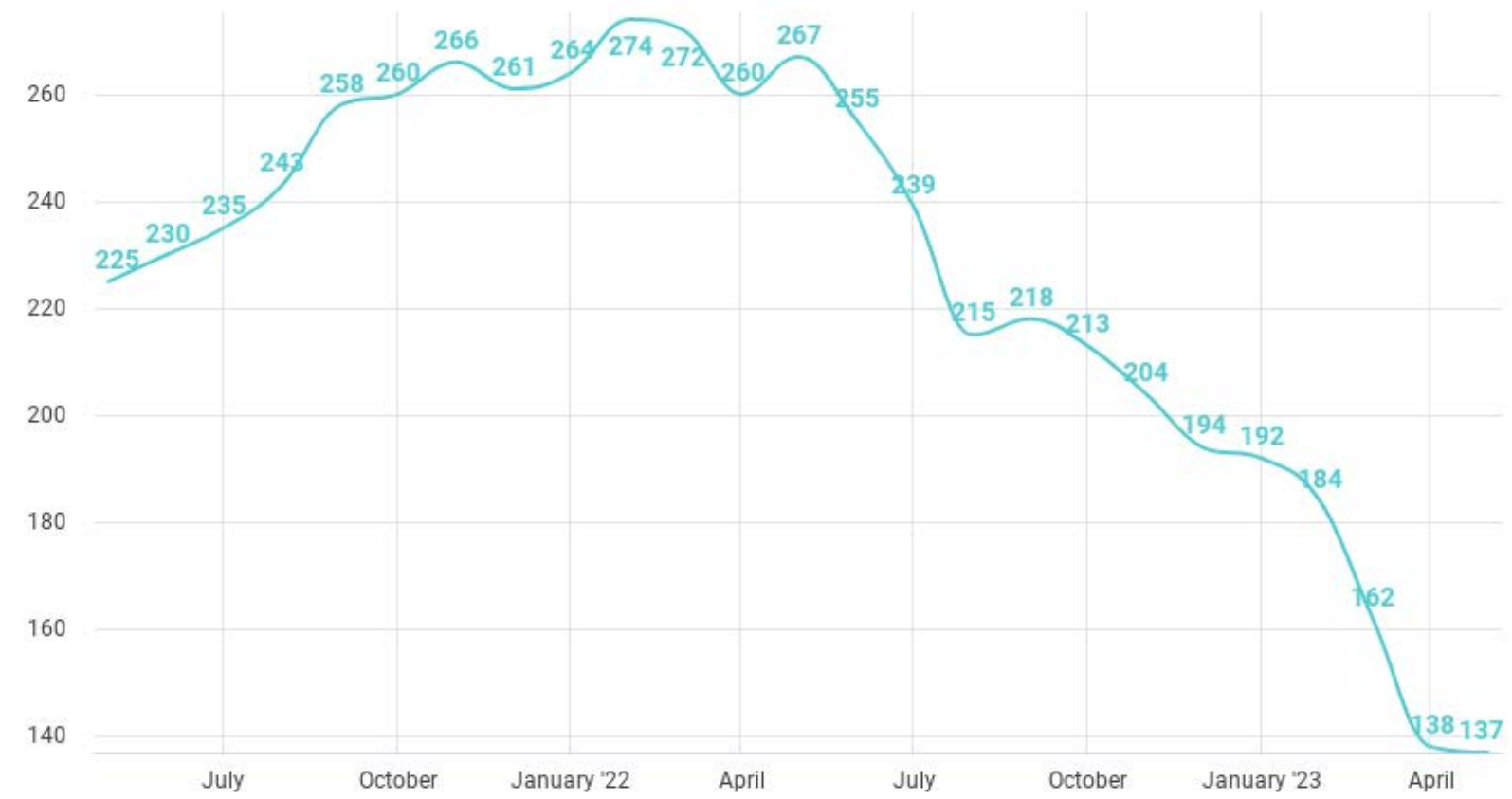
ALL INTEGRATED CIRCUITS

CHANGE
MONTH OVER MONTH

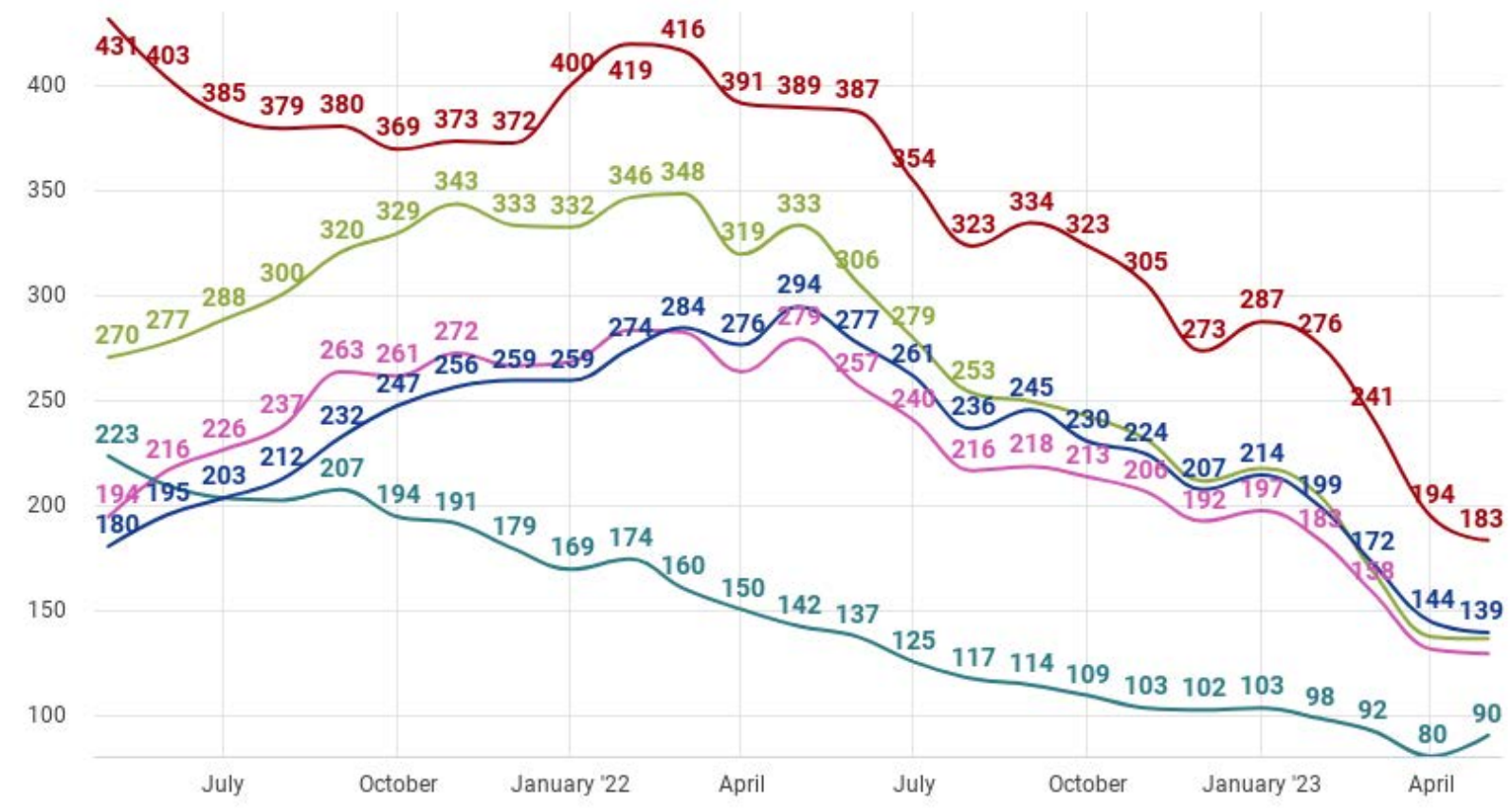
137 ▼ 1

CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
Amplifiers - Op Amps, Buffer, Instrumentation	139	▼	5
Microcontrollers	183	▼	11
RF Receivers, Transceivers	90	▲	10
Voltage Regulators - Linear	129	▼	2
Voltage Regulators - Switching	137	▼	1

ALL INTEGRATED CIRCUITS DEMAND INDEX



DEMAND INDEX BY SUBCATEGORY



Demand: Passive Components

MAY 2023

- The Demand Index for Passive Components increased 4 points in May, totaling 86 points. This is the first notable increase for this demand index category since May of 2022.
- The largest subcategory demand index increases were seen in Ceramic Capacitors (5 points), Chip SMD Resistors (5 points) and Tantalum Capacitors (5 points).
- Aluminum Electrolytic Capacitors demand index reported a 3 point increase (3.3%) in May. This slight uptick is the first increase in the index since December 2022.
- The Passive Components demand is still low in comparison to the other reported category demand indices. This could be reflective of the recovery seen since July 2021 on the supply index.

MAY 2023

ALL PASSIVE COMPONENTS

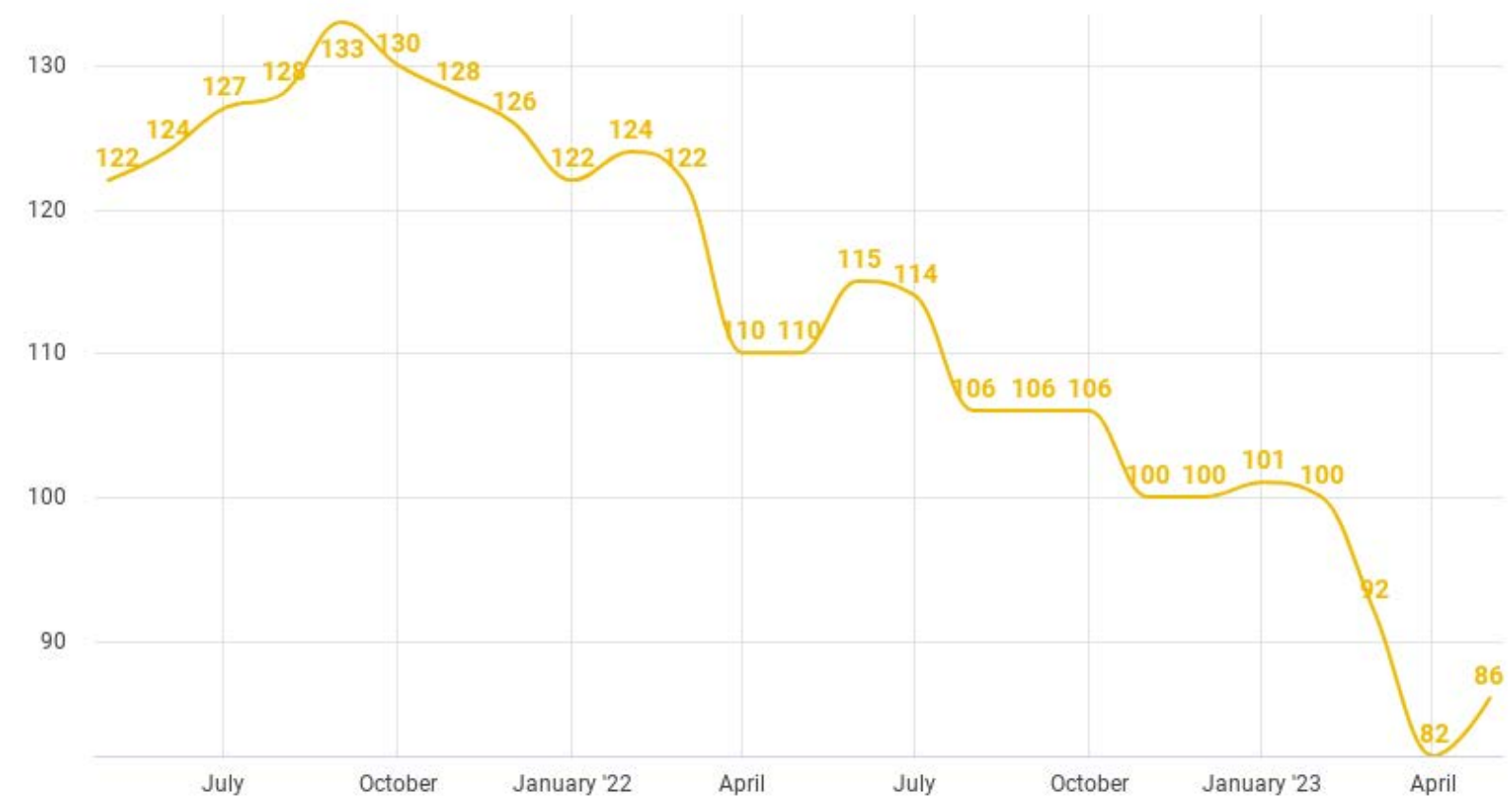
86

CHANGE
MONTH OVER MONTH

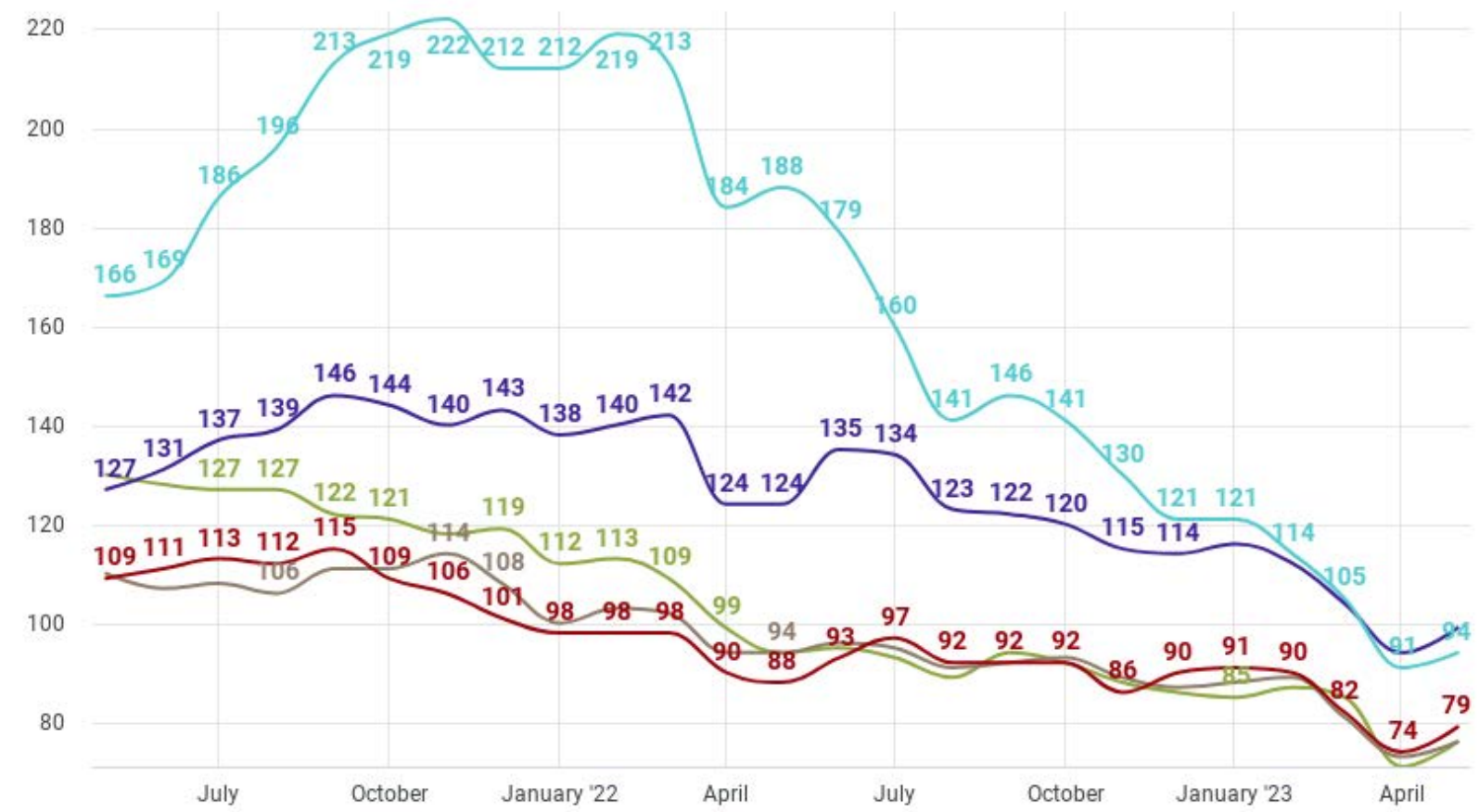
▲ 4

CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
Aluminum Electrolytic Capacitors	94	▲	3
Ceramic Capacitors	79	▲	5
Chip SMD Resistors	99	▲	5
Fixed Inductors	76	▲	3
Tantalum Capacitors	76	▲	5

ALL PASSIVE COMPONENTS DEMAND INDEX



DEMAND INDEX BY SUBCATEGORY



Demand: Discrete Semiconductors

MAY 2023

- The Discrete Semiconductor Industry Demand Index remained flat at 137 points in May. This is due to the mixed activity reported across the subcategory demand indices.
- The only subcategory level demand index decrease was seen in Rectifier Diodes which reported a 3 point (2.6%) decline, totaling 114 points.
- Demand index increases were seen in the Zener Diodes (8 points) and MOSFETs (7 points) subcategory level indices.
- Schottky Diodes and BJTs remained flat this month. Both of these demand indices have reported aggregated declines since July 2022. This month's leveling trend is also reflected in their respective supply indices.

MAY 2023

ALL DISCRETE SEMICONDUCTORS

137

CHANGE MONTH OVER MONTH

▶ Flat

CATEGORY	INDEX	CHANGE MONTH OVER MONTH
BJTs	108	▶ Flat
MOSFETs	153	▲ 7
Rectifier Diodes	114	▼ 3
Schottky Diodes	140	▶ Flat
Zener Diodes	133	▲ 8

ALL DISCRETE SEMICONDUCTORS DEMAND INDEX



DEMAND INDEX BY SUBCATEGORY

