

ELECTRONIC DESIGN TO DELIVERY INDEX

JANUARY 2024

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



SPECTRA

Supply: Overview

JANUARY 2024

- The Industry Supply Index reported a decline of 3 points (-1.8%), totaling 164 points this month. This is the second month of a slight decrease since November 2023.
- The Passive Component Supply Index experienced the most substantial decline, decreasing 9 points (-6.4%) to 132 points.
- The Electromechanical Supply Index has been steadily falling over the last 4 months, from an October 2023 high of 142 points (-5.6%) to its current value of 134 points.
- The Sensors subcategory had the only gains, with 3 points (2%), totaling 147 points.

JANUARY 2024

INDUSTRY INDEX

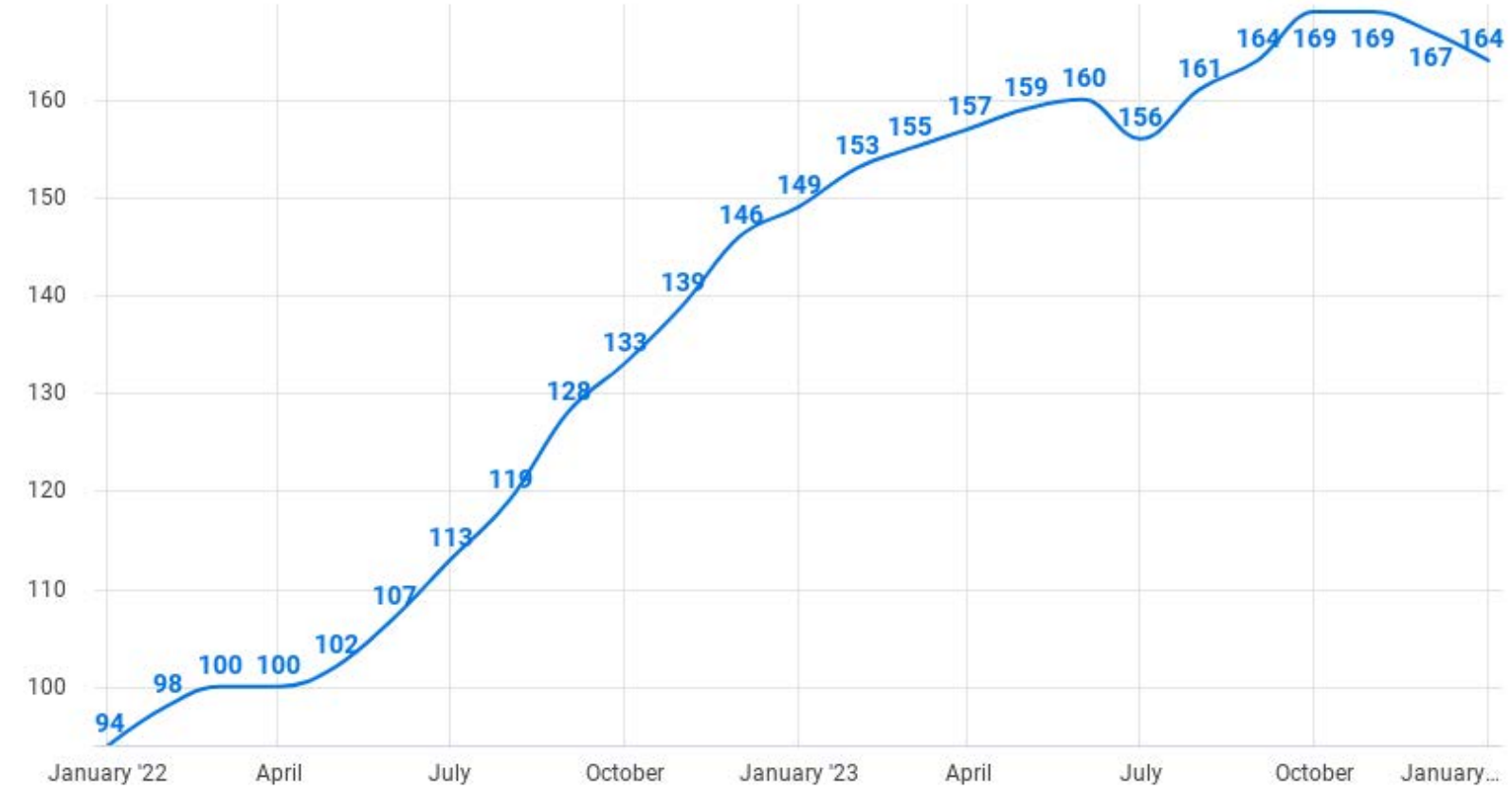
164

CHANGE
MONTH OVER MONTH

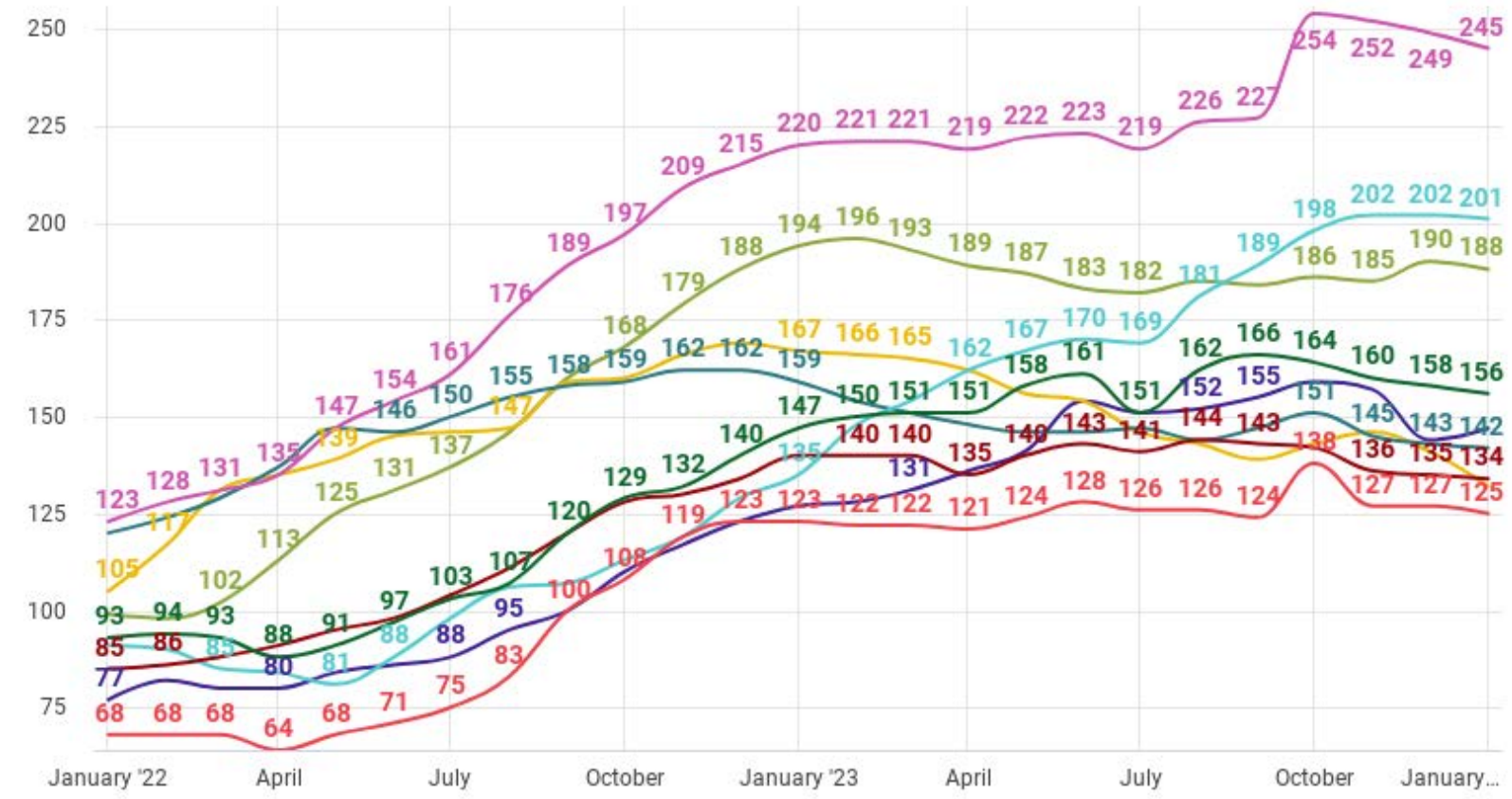
▼ 3

CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
Circuit Protection	245	▼	4
Connectors	156	▼	2
Discrete Semiconductors	125	▼	2
Electromechanical	134	▼	1
Integrated Circuits	201	▼	1
Optoelectronics	142	▼	1
Passive Components	132	▼	9
Power Products	188	▼	2
Sensors	147	▲	3

INDUSTRY SUPPLY INDEX



SUPPLY INDEX BY CATEGORY



Supply: Integrated Circuits

JANUARY 2024

- The Supply Index for Integrated Circuits dropped 1 point (0.5%) to 201 points in January 2024. This signifies the conclusion of the fourth consecutive month of growth following a slight decline in July 2023, when it reached a low of 169.
- RF Receivers, Transceivers Supply Index declined to 265 points (-2.6%) from the previous month. This is the third month of a decline since it peaked at 307 points in October 2023 (-11.4%).
- Voltage Regulators - Switching Supply Index remained flat in January 2024 at 168 points.

JANUARY 2024

ALL INTEGRATED CIRCUITS

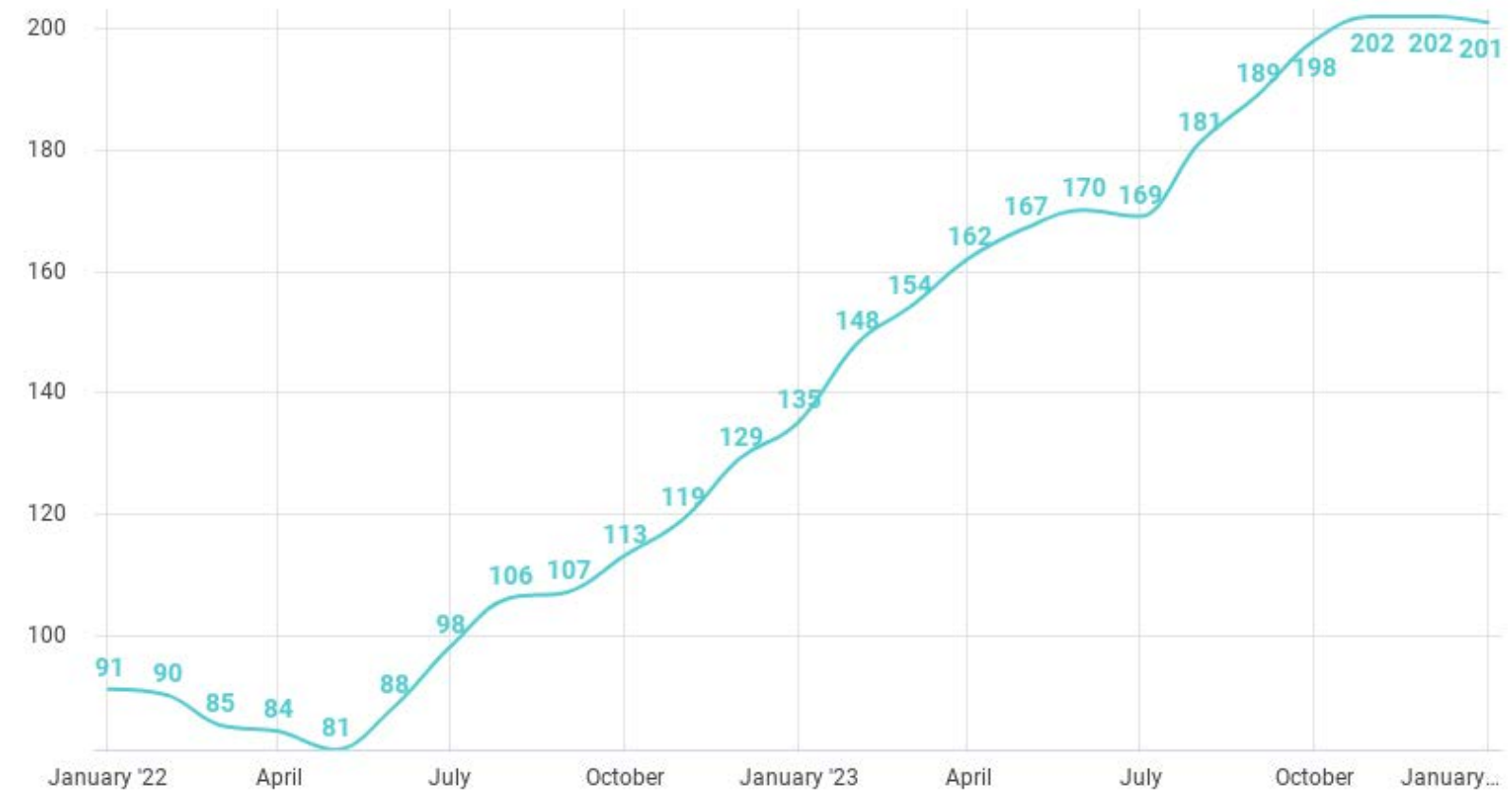
201

CHANGE
MONTH OVER MONTH

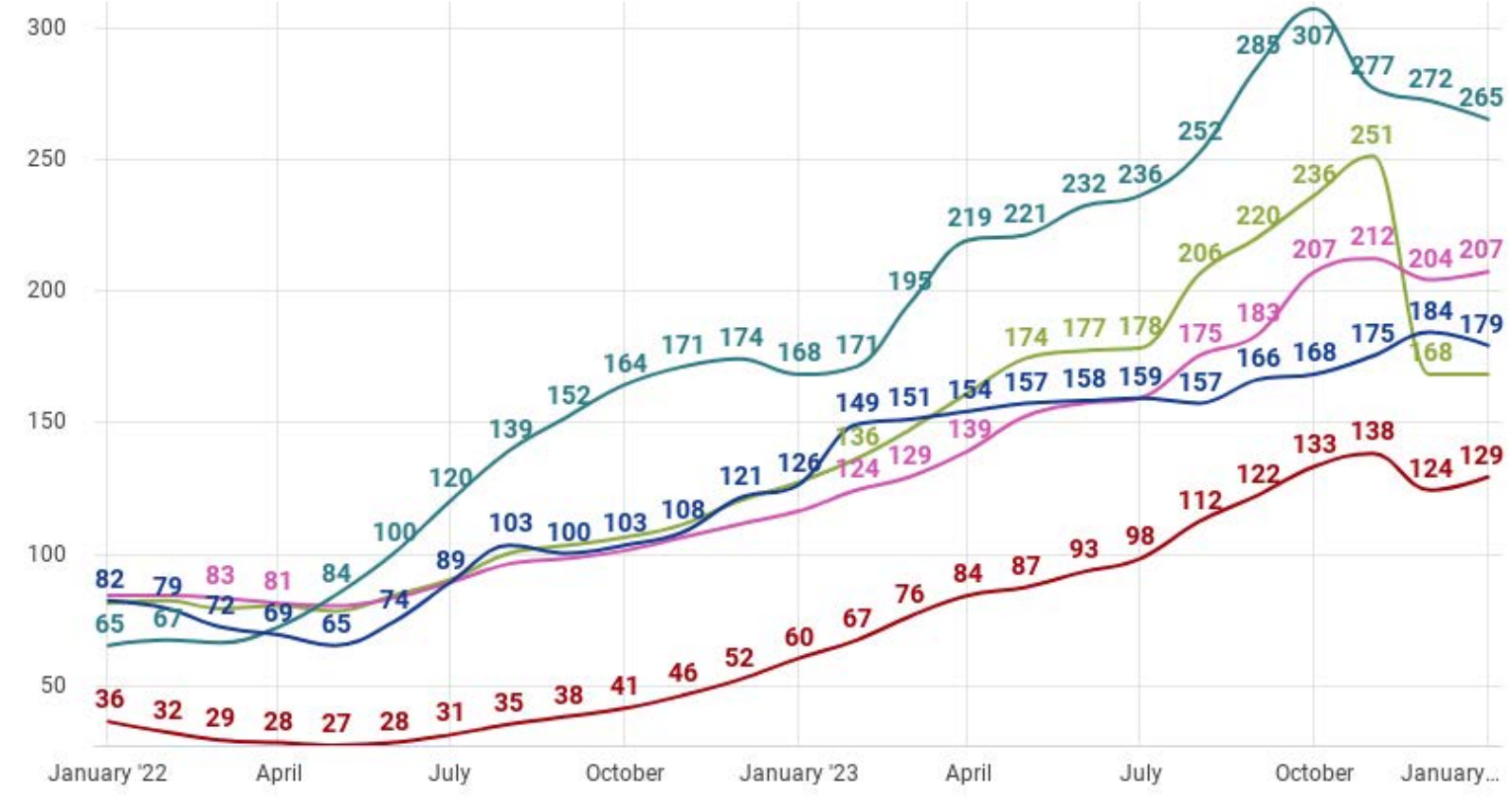
▼ 1

CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
Amplifiers - Op Amps, Buffer, Instrumentation	179	▼	5
Microcontrollers	129	▲	5
RF Receivers, Transceivers	265	▼	7
Voltage Regulators - Linear	207	▲	3
Voltage Regulators - Switching	168	▶	Flat

ALL INTEGRATED CIRCUITS SUPPLY INDEX



SUPPLY INDEX BY SUBCATEGORY



Supply: Passive Components

JANUARY 2024

- The Supply Index for Passive Components reduced this month by 9 points (-6.4%), resulting in an index value of 132 points. This reflects a significant drop compared to the surge to 146 points in December 2023.
- The Aluminum Electrolytic Capacitors subcategory remained flat at 161 points. This ends the 24-month consecutive increasing trajectory from December 2021.
- The Chip SMD Resistors Supply Index subcategory had the largest drop by 14 points to a supply index value of 146 (-8.8%) from the previous month.

JANUARY 2024

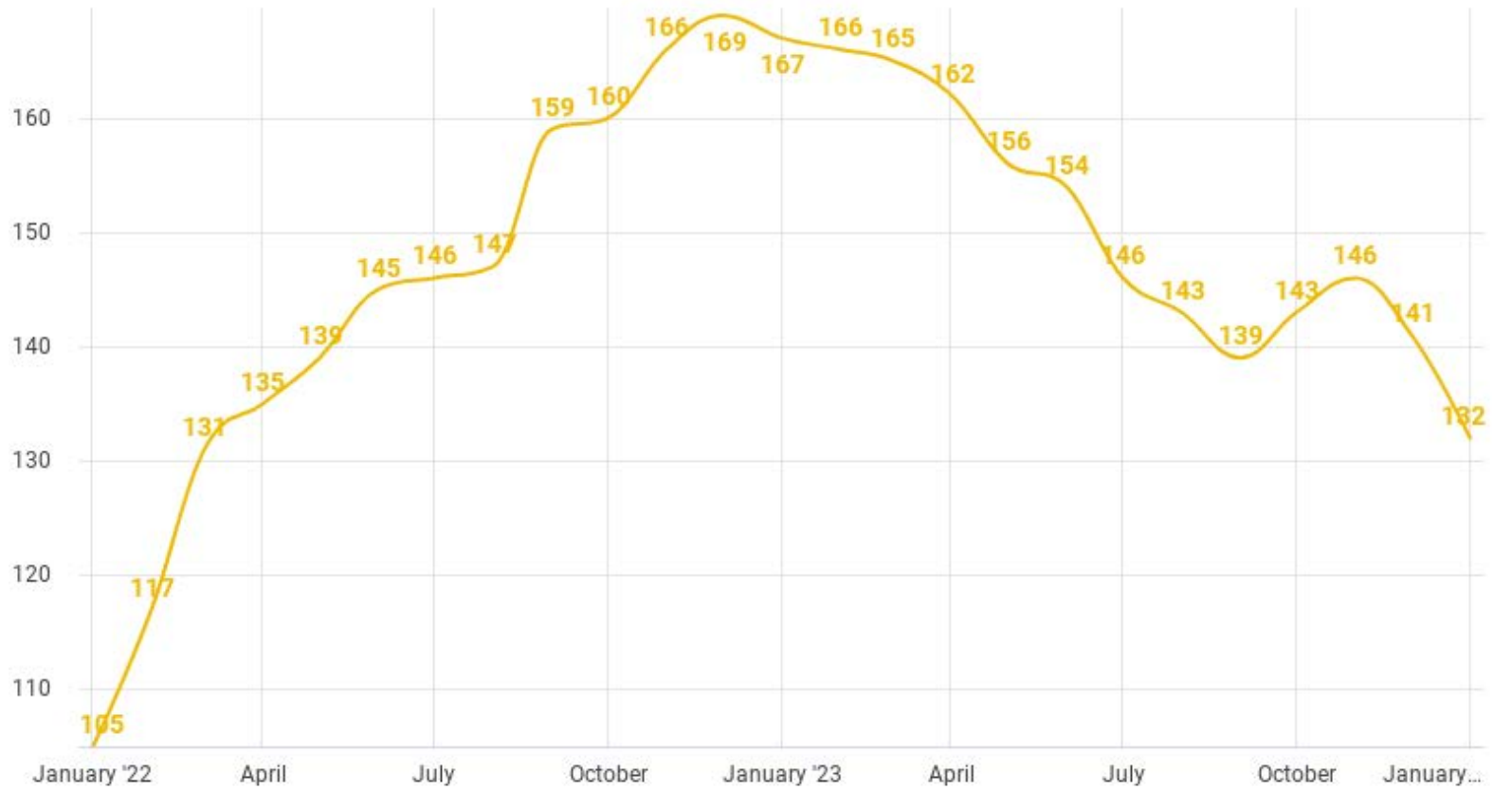
ALL PASSIVE COMPONENTS

CHANGE
MONTH OVER MONTH

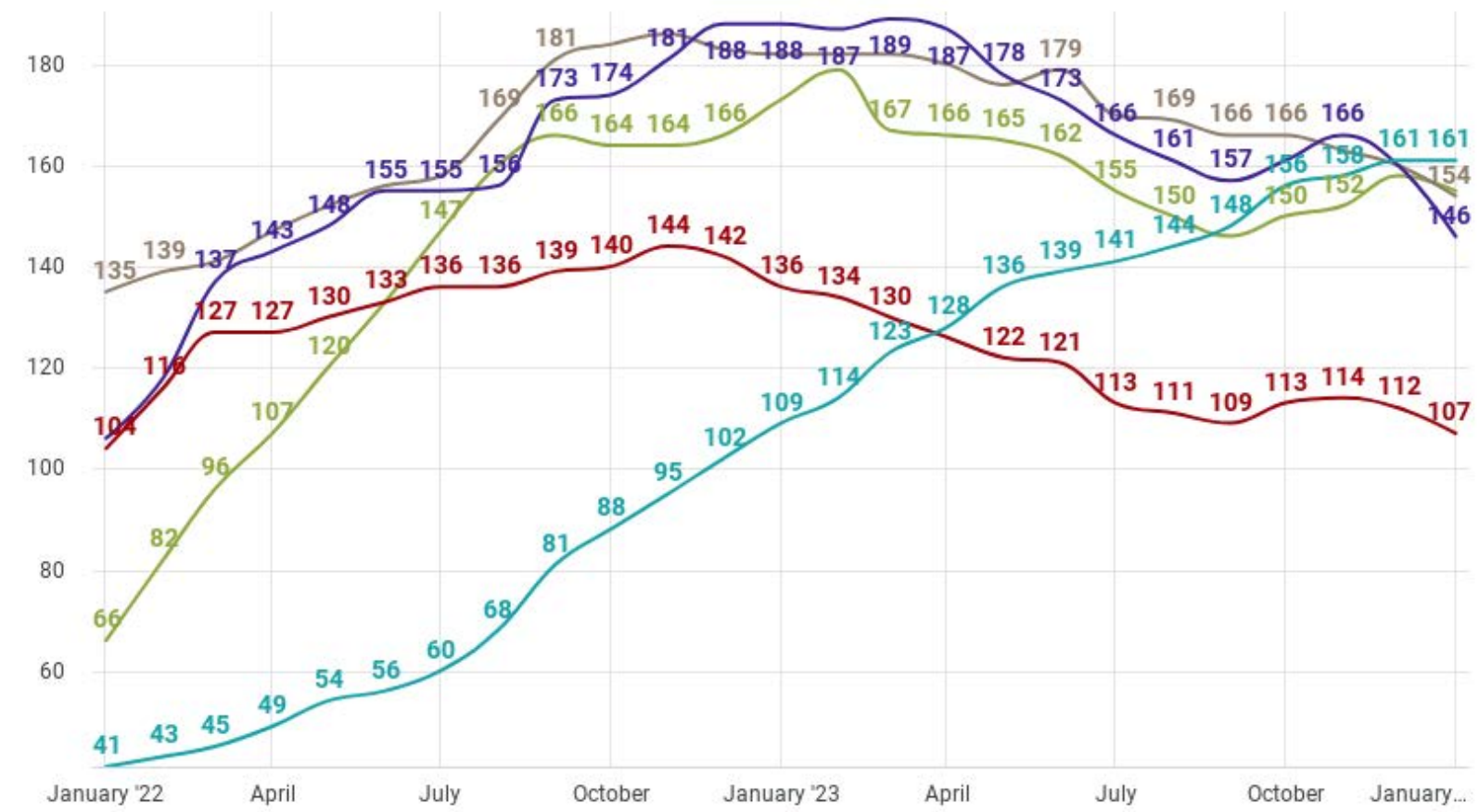
132 ▼ **9**

CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
Aluminum Electrolytic Capacitors	161	▶	Flat
Ceramic Capacitors	107	▼	5
Chip SMD Resistors	146	▼	14
Fixed Inductors	154	▼	6
Tantalum Capacitors	155	▼	3

ALL PASSIVE COMPONENTS SUPPLY INDEX



SUPPLY INDEX BY SUBCATEGORY



Supply: Discrete Semiconductors

JANUARY 2024

- The Discrete Semiconductor Supply Index decreased by 2 points (-1.6%) this month, resulting in an index score of 125 points.
- MOSFETs Supply Index decreased by 4 points (-2.4%), reaching 166 points, ending the last 20 months (April 2022), supply growth for this subcategory.
- BJTs with 98 points, had the largest percentage drop (-4.9%) in the supply index. This signifies the third consecutive month of decline since it reached 115 points (-14.8%) in December 2023.
- The Rectifier Diodes Supply Index remained flat at 128 points.

JANUARY 2024

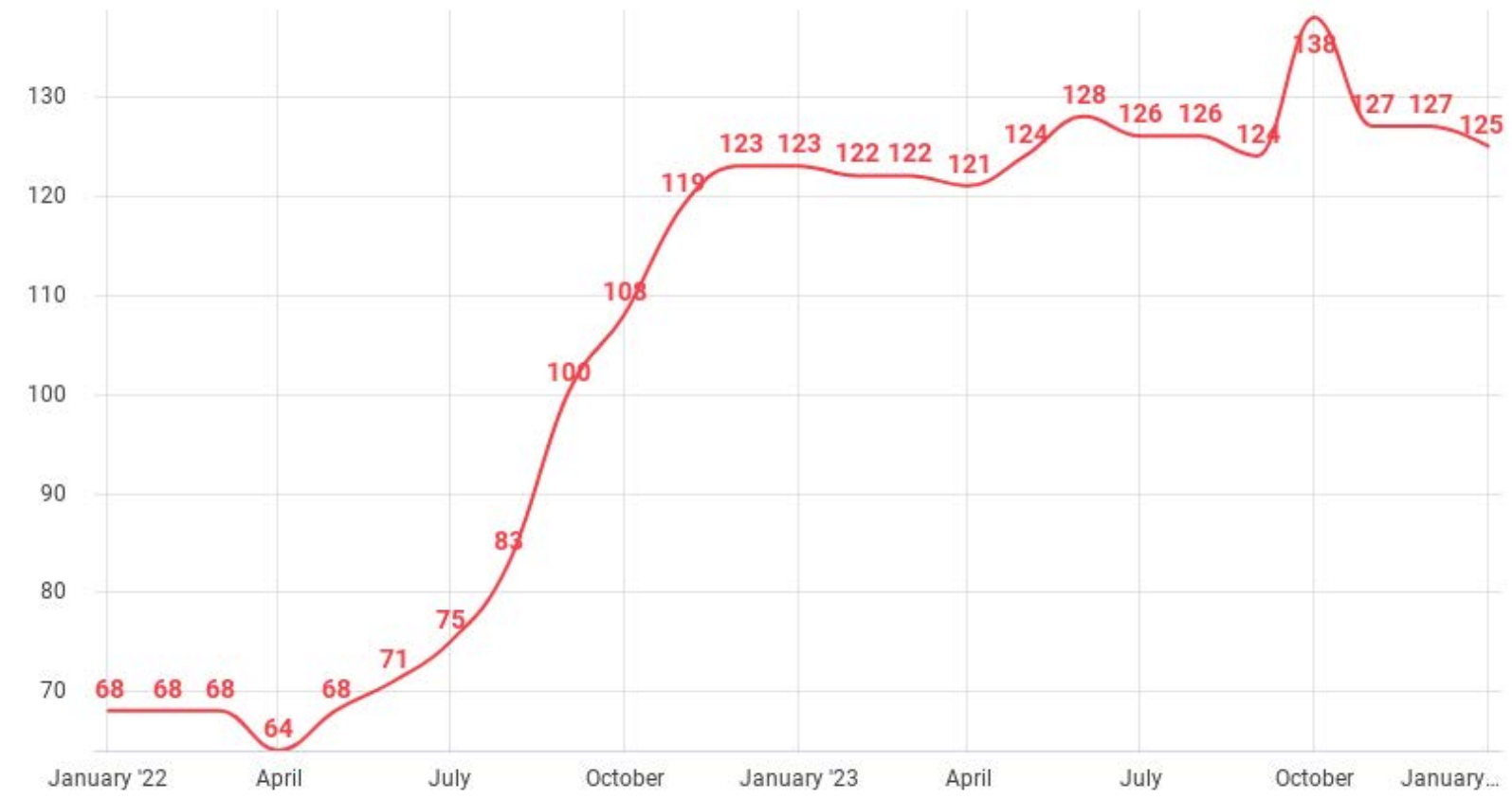
ALL DISCRETE SEMICONDUCTORS

125

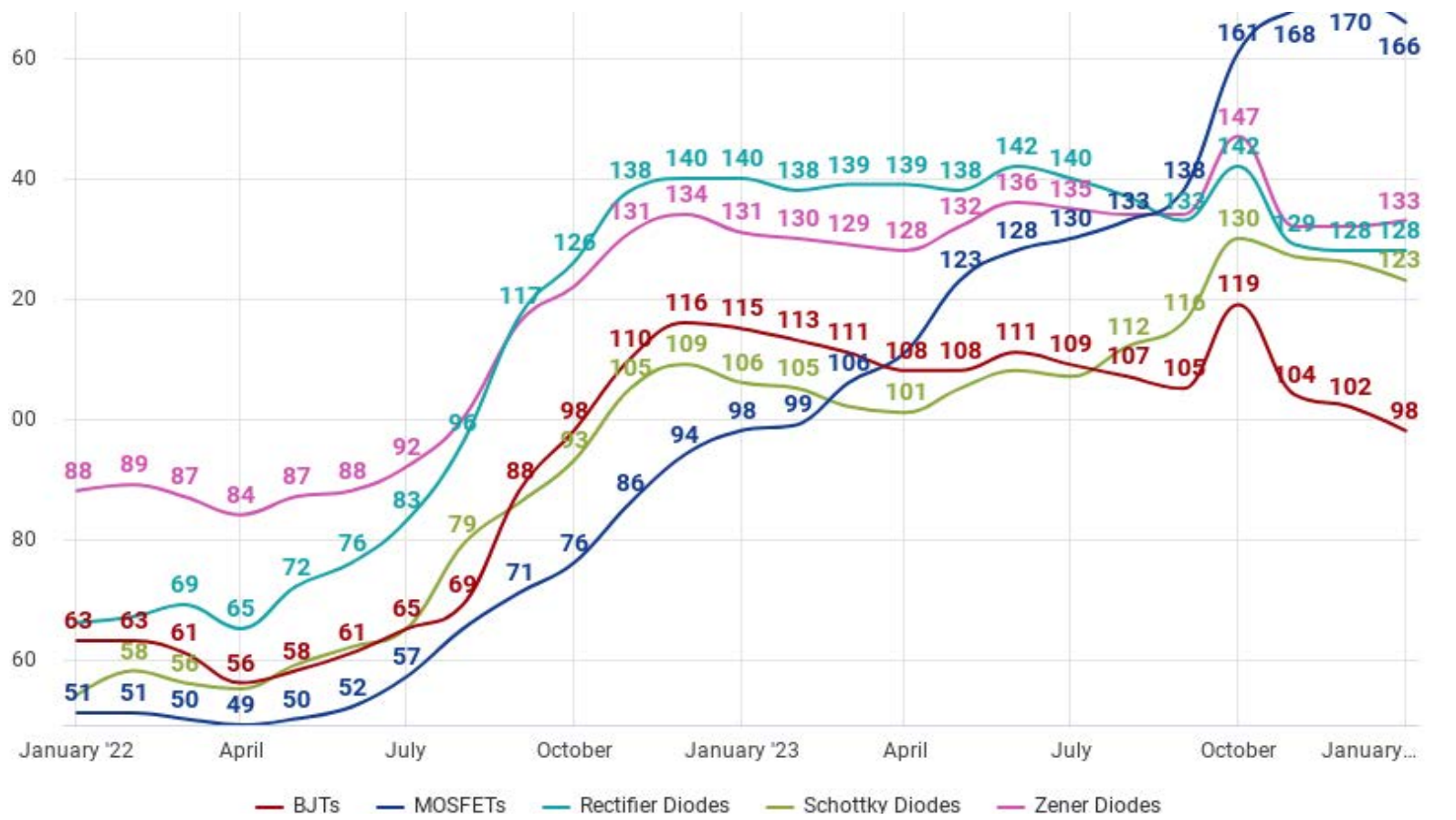
CHANGE MONTH OVER MONTH
▼ 2

CATEGORY	INDEX	CHANGE MONTH OVER MONTH
BJTs	98	▼ 5
MOSFETs	166	▼ 4
Rectifier Diodes	128	▶ Flat
Schottky Diodes	123	▼ 3
Zener Diodes	133	▲ 1

ALL DISCRETE SEMICONDUCTORS SUPPLY INDEX



SUPPLY INDEX BY SUBCATEGORY



Demand: Overview

JANUARY 2024

- The Industry Demand Index had a net rise of 11 points, representing a growth of 8%, resulting in a cumulative total of 147 points. Since October 2023, demand has increased from 131 points (12.2%); this marks the third consecutive month of demand growth.
- Double-digit increases were reported in all categories except Discrete Semiconductors at 175 points (5.4%). The subcategory has grown from 137 points in May 2023 by 27.7%.
- The demand index for Circuit Protection and Optoelectronics increased significantly by 17 points this month. The gains for Optoelectronics were 17.2%, and Circuit Protection was 12.5%.
- Since April 2023, when it hit its lowest point of 98 points, the demand index for Connectors witnessed the largest growth, reaching 154 points (57.1%).

JANUARY 2024

INDUSTRY INDEX

147

CHANGE
MONTH OVER MONTH

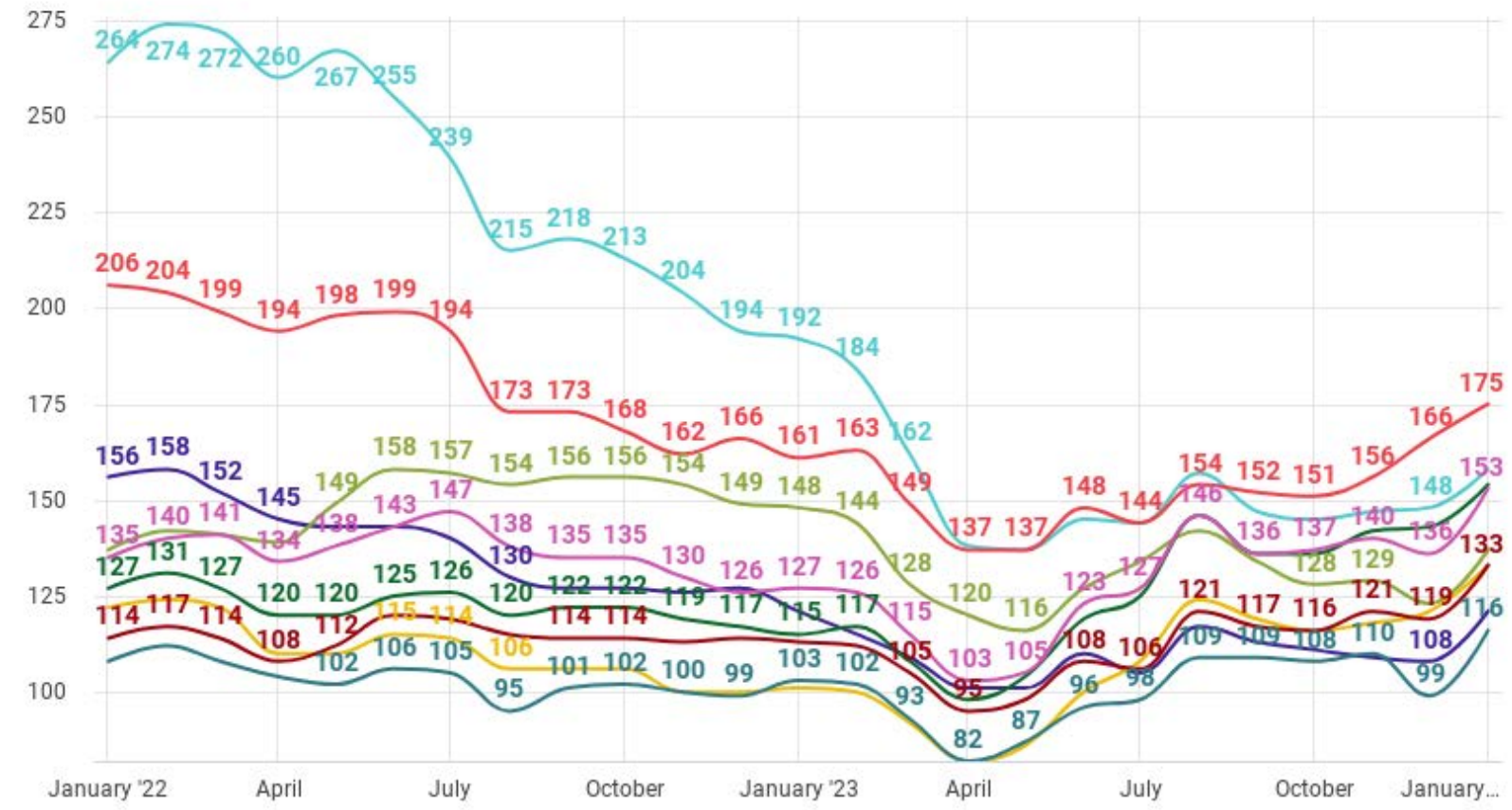
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CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
Circuit Protection	153	▲	17
Connectors	154	▲	11
Discrete Semiconductors	175	▲	9
Electromechanical	133	▲	14
Integrated Circuits	158	▲	10
Optoelectronics	116	▲	17
Passive Components	133	▲	12
Power Products	137	▲	14
Sensors	121	▲	13

INDUSTRY DEMAND INDEX



DEMAND INDEX BY CATEGORY



Demand: Integrated Circuits

JANUARY 2024

- The Demand Index for Integrated Circuits rose by 10 points in January, totaling 158 points (6.8%). The category has been increasing steadily over the last three months.
- Microcontrollers saw the most significant increase in the demand index, with an increase of 17 points. This notable increase reverses the downward trend in this index that started in August 2023, when demand reached 207 points, representing a 27.5% drop.
- Additional demand index value increases were seen in Amplifiers - Op Amps, Buffer, Instrumentation (13 points), Voltage Regulators - Linear (12 points), Voltage Regulators - Switching (14 points) and RF Receivers, Transceivers (8 points).

JANUARY 2024

ALL INTEGRATED CIRCUITS

CHANGE MONTH OVER MONTH

158 ▲ **10**

CATEGORY	INDEX	CHANGE MONTH OVER MONTH
Amplifiers - Op Amps, Buffer, Instrumentation	156	▲ 13
Microcontrollers	150	▲ 17
RF Receivers, Transceivers	99	▲ 8
Voltage Regulators - Linear	144	▲ 12
Voltage Regulators - Switching	124	▲ 14

ALL INTEGRATED CIRCUITS DEMAND INDEX



DEMAND INDEX BY SUBCATEGORY



Demand: Passive Components

JANUARY 2024

- The Demand Index for Passive Components increased 12 points in January, totaling 133 points. This is the third month in a row that demand has increased since October 2023.
- The sourcing activity in all categories increased, with the highest rise in demand index recorded in Fixed Inductors, amounting to 25 points (23.4%), bringing the total to 132 points, and reaching its highest recorded value since January 2022.
- Ceramic Capacitors, Chip SMD Resistors, and Tantalum Capacitors have continued to see demand signal levels increase since November 2023.

JANUARY 2024

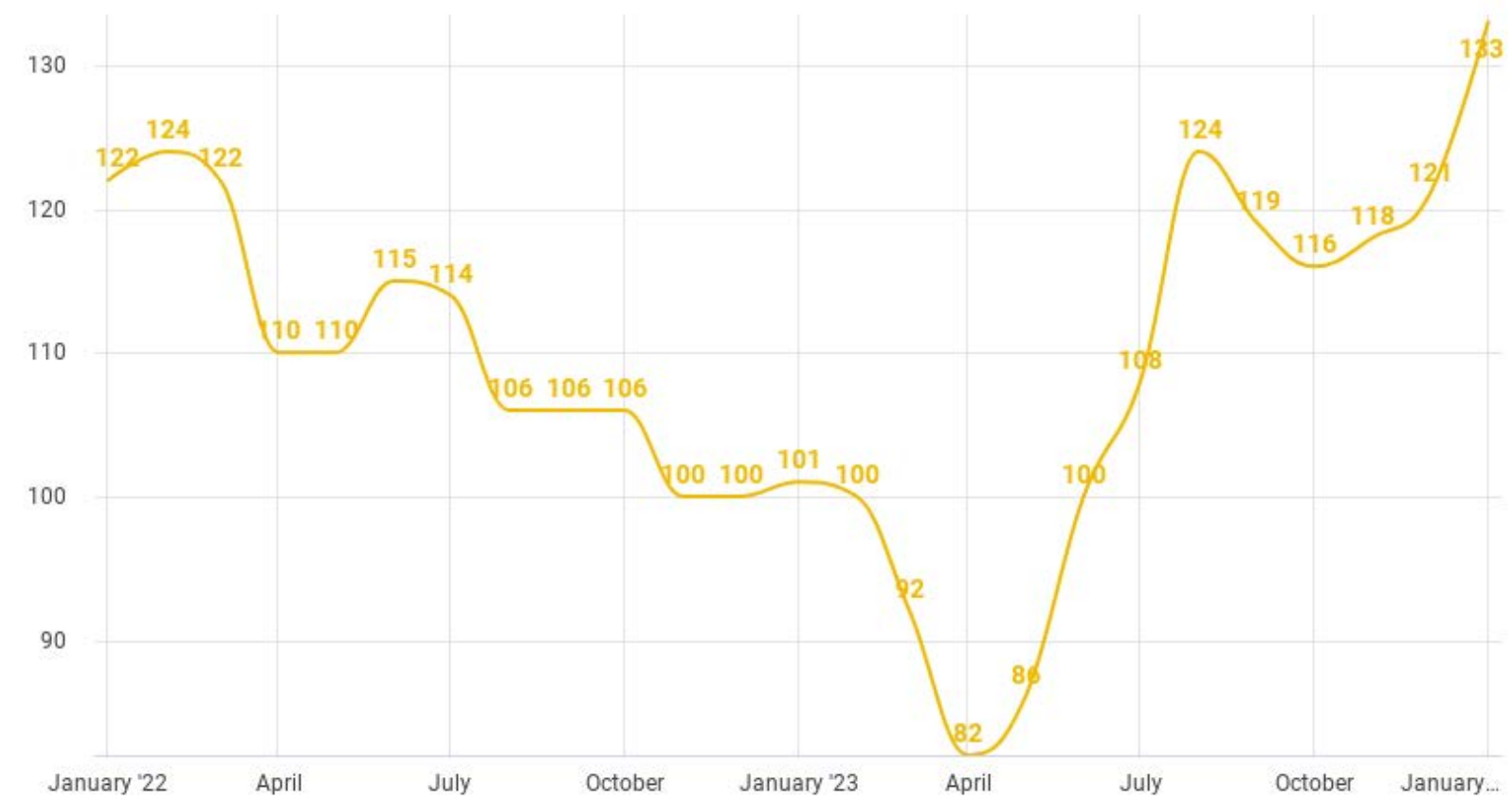
ALL PASSIVE COMPONENTS

CHANGE
MONTH OVER MONTH

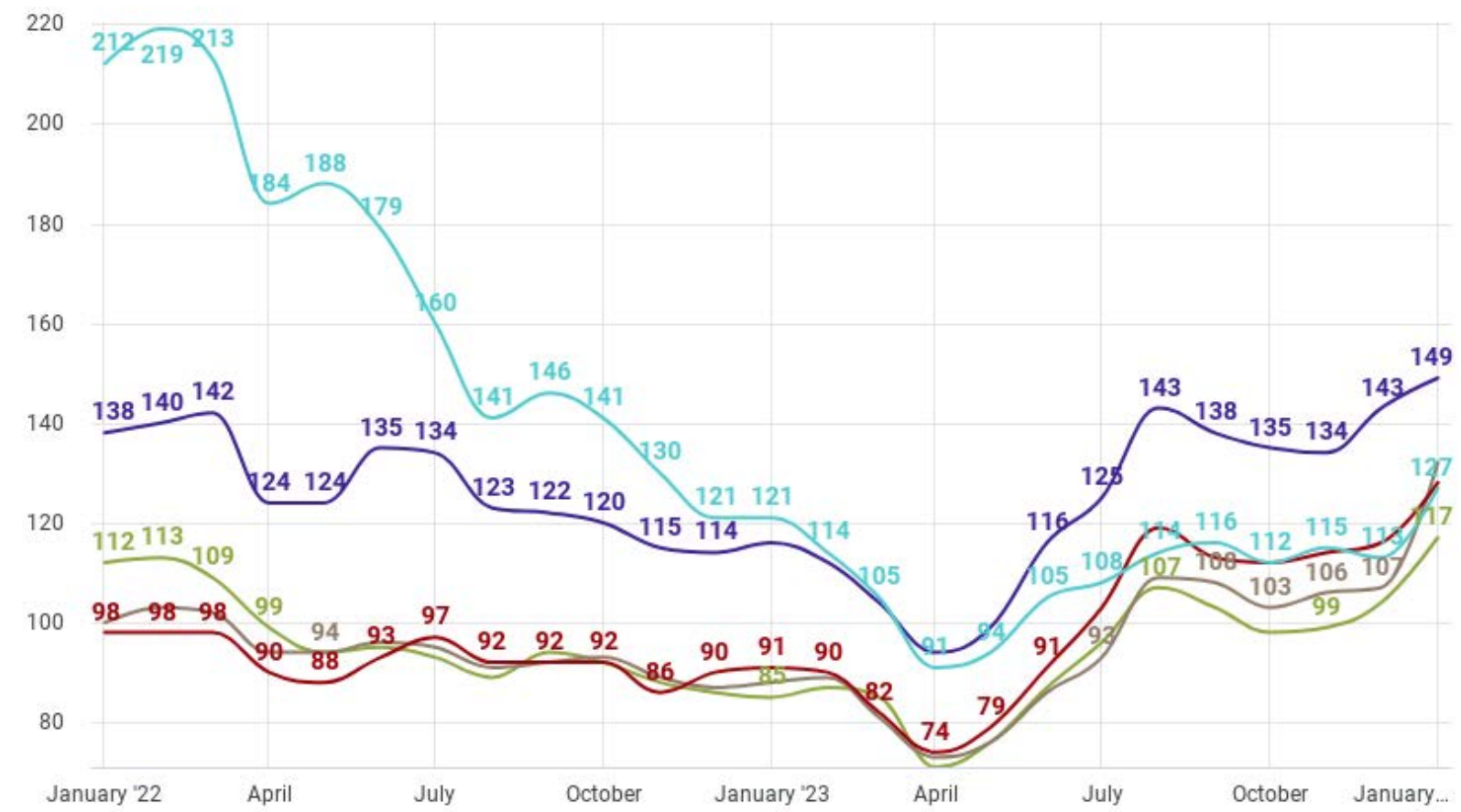
133 ▲ **12**

CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
Aluminum Electrolytic Capacitors	127	▲	14
Ceramic Capacitors	128	▲	12
Chip SMD Resistors	149	▲	6
Fixed Inductors	132	▲	25
Tantalum Capacitors	117	▲	13

ALL PASSIVE COMPONENTS DEMAND INDEX



DEMAND INDEX BY SUBCATEGORY



Demand: Discrete Semiconductors

JANUARY 2024

- The Discrete Semiconductor Industry Demand Index increased by 9 points (5.4%) in January 2024. The demand for this category is comparable to the demand seen in July 2022.
- Zener Diodes saw the most significant increase of all subcategories, increasing by 11.8% (17 points). The demand for Zener Diodes has not been this high since August 2022.
- All Discrete Semiconductors subcategory indexes experienced a similar increase in demand activity.

JANUARY 2024

ALL DISCRETE SEMICONDUCTORS

175

CHANGE
MONTH OVER MONTH

▲ 9

CATEGORY	INDEX	CHANGE	MONTH OVER MONTH
BJTs	141	▲	13
MOSFETs	180	▲	10
Rectifier Diodes	149	▲	13
Schottky Diodes	177	▲	11
Zener Diodes	161	▲	17



ALL DISCRETE SEMICONDUCTORS DEMAND INDEX



DEMAND INDEX BY SUBCATEGORY

