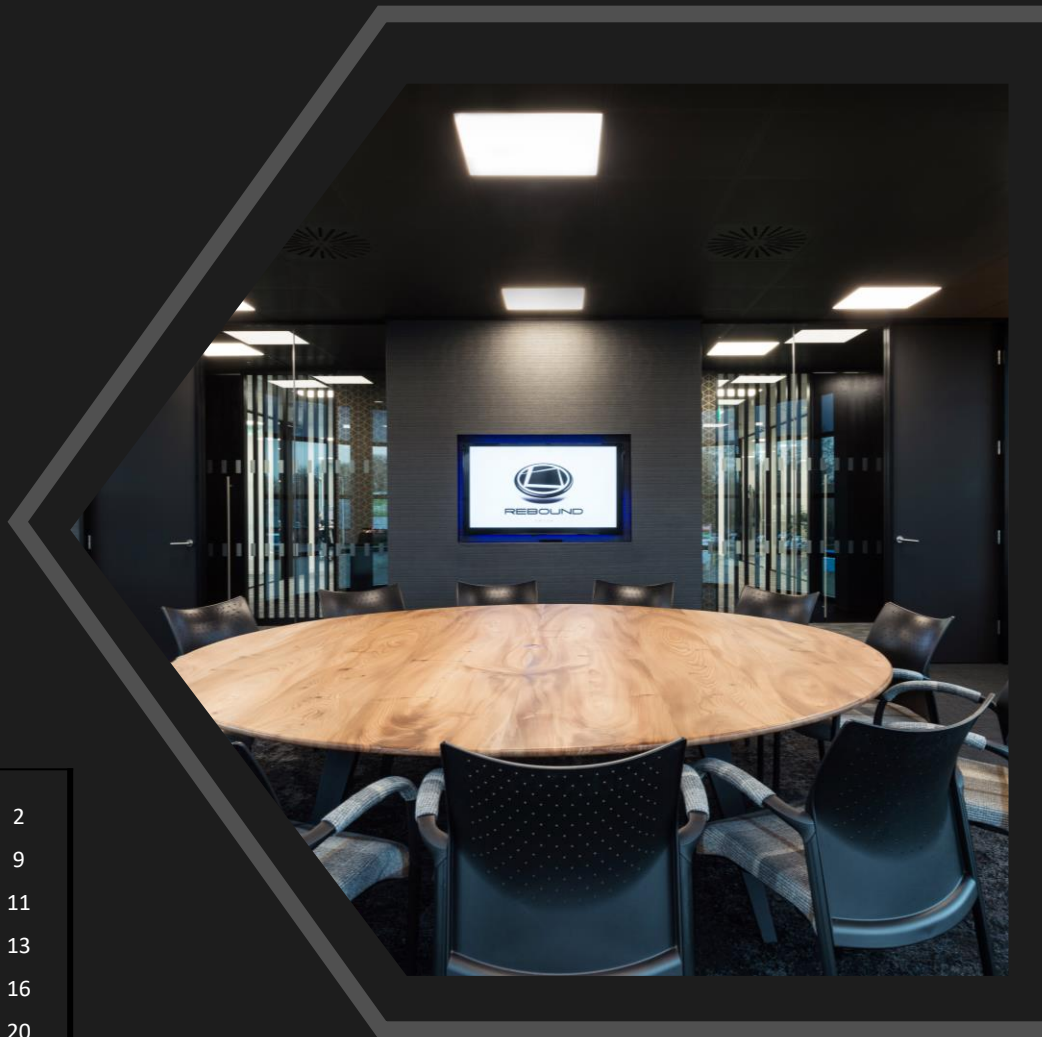




# Market Insights Q1 2023



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# General Market Insight

## Market Growth

- According to Semiconductor Industry Association (SIA), the global industry sales in January 2023 reached USD 41.2 Billion, down of about 5.2% from a total of 43.6% Billion in December 2022 and as compared to January 2022 sales in this industry, it is down of about 18.5%.
- About 70% of market growth in the global semiconductor market is driven by the automotive, computation and data storage and wireless industries.
- Leaders are optimistic about revenue growth in this industry. About 81% of the survey that KPMG conducted responded that they project their company's revenue will grow over the coming year though they are slightly less bullish on industry revenue growth. About 41% percent are concerned that the Russia-Ukraine war will materially impact industry revenue growth this year. However, when KPMG and the GSA conducted a pulse survey in May 2022, only 25 percent had this concern.

## US CHIPS Act

- The Biden administration unveiled rules this February for its "CHIPS for America" program to build up semiconductor research and manufacturing in the United States. The CHIPS act is foremost about national security but will try to advance other priorities as well.
- US' CHIPS Act spurs growing concerns among enterprises. Based on Chinese experts, the latest push by the US in chip sector, in which Washington was asking subsidy recipients under so-called CHIPS act and investment restrictions in China was widely viewed as a move of US targeting China.
- Tri-country dialogue between US, Japan, and Korea to cut off chips to China is an expansion of the trilateral cooperation among Indo-Pacific partners that previously focused largely on the North Korean nuclear threat. The forum seeks to build unified front with partners to restrict sales of advanced semiconductor manufacturing equipment to China.

## Semiconductor Industry

- South Korea's chip industry is facing shortage of skilled employees which is already struggling due to the repercussions of the global economic slump. The supply of new talents for the industry, including those who graduated from both formal and vocational schools remains low at about 5,000 per year according to Korea Bizwire.
- The plans for U.S modular nuclear power reactor received a push as some Western U.S. cities vote to move ahead with novel nuclear power plant despite the bump in projected costs.
- Ransomware attack on US-based chip supplier MKS Instruments causes delays for semiconductor groups and would cost about USD 200mn in lost or delayed sales that might continue until March 2023.



## General Market Insight

- A survey conducted on March 1 showed Asia's factory activity stalled last month, as slowing global demand, stubbornly high inflation and the fallout from past interest rate hikes weighed on the region's economies with the exception of China.
- South Korea's imports of Silicon wafers from China have continue to grow, while South Korea's imports of silicon wafers from Japan have declined in the past three years.
- China is by far the largest silicon producer followed by Russia, Brazil, and Norway.
- Asia-Pacific semiconductor demands make up the bulk of global demand followed by Europe and US regions, respectively.
- Japan will consider lifting the export measures to South Korea after assessing the country's administration plan to resolve the wartime labour row to improve ties.
- Singapore is the Chipmakers and related suppliers' target hub to increase their production in order to meet the growth demand in the medium to long term and spread their supply chain risks.
- Domestic producers in Japan are boosting investments and accelerating development of back-end technologies for semiconductor manufacturing.
- EU CHIPS act aims to increase semiconductor production in EU region. In February 2023, Chips Joint undertaking, an investment tool whose objective is to support the growth of the sector was adopted to promote EU leadership in this field in the mid to long term.
- The average lead times for the most standard semiconductors is 26 to 52 weeks. Most of the high-end components are in allocation with average lead- times of 52 to 78 weeks.
- SEMICON West is set to open at Phoenix Convention Centre in 2025. For the first time in 50 years, the valley will host the largest semiconductor conference in North America.
- TSMC invested USD 40 Billion in the construction of its semiconductor factory in Arizona.
- Foxconn Technology plans to build second chip plant in India, independently.



## Analog Devices

- Analog Devices announced that the company has joined the Association of Musical Electronics Industry (AMEI), an organization that standardizes, manages, and promotes the MIDITM standard of musical data communication in Japan.
- Analog Devices introduced a precision medium bandwidth signal chain platform improving system performance for signal bandwidths of DC to approximately 500kHz towards industrial and instrumentation applications. The new platform offers a host of complete signal chains with customizable solution options and a curated suite of development tools, such as LTspice® simulations, to simplify the design journey.

## Bourns

- Bourns Resistor Product Line continues to broaden its portfolio of high power, surface mount thick film chip resistors by introducing new model CRM-Q, CRS-QCMP-Q, and CHP-Q series thick film chip resistors.
- The company released the highest current carrying bidirectional Power Transient Voltage Suppressor (PTVS) diode series that is available in a compact surface mount DFN package.

## Broadcom

- Broadcom's acquisition of VMware last May 2022 was extended this year with a 90-day extension due to regulatory issues. They are aiming to seal the transaction until the end of this fiscal year in October 2023.
- The company listed new products HSMH-H170, MegaRAID 9540-2M2, ASMB-MTBO-OB3A2, HSME-CA83, ASMB-MTB1-OB3A2, and HSMC-CO20

## Diodes Inc.

- Diodes Inc. announced the new DIODES™ ZXMS81045SPQ, its first protected, automotive-compliant, high-side IntellifET™ and its first Silicon Carbide (SiC) Schottky barrier diodes (SBD).
- The company launched their latest linear current LED driver, the DIODES™ AL5887. that addresses RGB and Single-color Solid-state lighting.

## Infineon

- Infineon Technologies AG and TrustSEC have joined forces to launch BIO-SLCOS, a smart cards operating system utilizing Infineon's latest SLC38 Secure Element to strengthen biometric smart card security.
- Infineon received the approval from German government to start construction of its new fab in Dresden, Germany. The company plans to invest a total of USD 5.5 million in the new Dresden plant which is expected to start producing analog/mixed-signal chips and power semiconductors in fall 2026.

## Intel

- Intel's in-development 3nm CPU products will land in 2024.



## Kyocera

- Kyocera targets sustainability through plastic-free packaging for knives that will be exhibited in Frankfurt am Main at the Ambiente Trade Fair in February 2023.
- The company plans to build a new manufacturing plant in Isahaya City, Nagasaki, Japan with approximately 150,000 sqm area by 2026.

## Lattice

- Lattice expands ORAN Solution stack with Precision timing and secure synchronization support for 5G+ network infrastructure.
- New Lattice Avant™ FPGA platform has been named a 2023 BIG Innovation Awards winner in the product category for its leadership power efficiency, performance, and small form factor.

## Micron

- Micron Technology, Inc. announced that they are participating at Susquehanna's Twelfth Annual Technology Conference in March 2, 2023.
- Micron DDR5 memory delivers up to twice the memory bandwidth over previous generations.
- New Micron 9400 SSD delivers best-in-class performance and capacity and is now available from channel partners and to global OEM customers for use in servers requiring the highest levels of storage performance.

## Molex

- Molex elevates electrical safety in Harsh environments with launch of first portable, IP69K-Rated super safeway Ground Fault Circuit Interrupter (GFCI). The new GFCI offering is the highest level of industrial protection against penetration of high pressure, high temperature water and dust.

## Murata

- Murata, in collaboration with longstanding systems integration partner Sentinum, has made a major announcement that will further progress the widespread automation of crop production.
- The company announced second generation LTE-M/NB-IoT module, the Type2GD it is the first solution on the market that offers ultra-low power and multiple LPWA communication protocols including non-terrestrial networks (NTN) satellite connectivity support in a single system-on-chip (SoC) package.

## Nexperia

- Nexperia strongly condemns the illegal invasion of Ukraine by Russia. According to the company, they comply with international sanctions, which they fully support, therefore, they have no Russian customers and do not sell to Russia even through distributors. Nexperia has never been involved in projects of military nature and has no intention of doing so in the future stated in their press release.



## NXP

- NXP unveils EdgeLockSE051H , a single chip solution with integrated NFC designed to improve security and matter device user experience

## Nordic

- Nordic Semiconductor company announced availability of nRF7002 companion IC and nRF7002 development kit, enabling developers to easily create innovative, low power Wi-Fi 6 IoT applications.
- The Lilbit smart wearable employs Nordic's nRF9160 SiP and nRF52811 SoC to track pet location and health metrics

## Onsemi

- Onsemi's acquisition of East Fish Kill fab create onsemi's largest U.S. manufacturing site.
- EFK enables accelerated growth and differentiation for onsemi's power, analog and sensing technologies

## Panasonic

- Panasonic introduces LUMIX S5IIX and LUMIX S5II mirrorless cameras with Hybrid Phase Detection AF system, enhanced Active I.S. and newly developed 24-megapixel full-frame CMOS sensor.
- The company opens senior housing community in China called Yada Panasonic Community in Jiangsu province that offers 1,170 units.

## Samsung

- New CV3-AD685 System-on-Chip advances Autonomous and Advanced Driver Assistance System (ADAS) applications, providing single-chip solution for multi-sensor fusion and path planning
- has established a Life Cycle Assessment (LCA) on the product carbon footprint of its semiconductor business and achieved verification from DNV, one of the world's leading independent certification bodies.
- Samsung's crisis resilience receives global recognition with the ISO 22301 certification, the international standard for business continuity management

## Siemens

- Siemens AG's spin-out of its motors and drives business would result in a wholly owned subsidiary named Innomotics and would be largely complete by October 1.



## Silicon Labs

- Silicon Labs grows revenue 46% year-on-year in third quarter of 2022 across both its Industrial & Commercial, and Home & Life businesses.

## TDK

- TDK offers industry's highest rated current multilayer chip bead for automotive power supply lines -- MPZ2520SPH Series multilayer chip.

## Texas Instruments

- Texas Instruments will build a new USD 11 Billion 300-milliliter semiconductor wafer fabrication plant in Lehi, Utah.
- Teledyne e2v Provides a Highly-integrated Radiation-tolerant DDR4 Memory Solution with Texas Instruments Power Supply
- TI identified a potential issue that makes the potentially affected material subject to SIEP.

## Toshiba

- Toshiba's \$15B buyout deal in trouble, foreign investors might drop.
- The company's newly Launched gate-driver IC for automotive brushless DC motors helps improve safety of electrical components.



ANALOG		PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
Standard	Amplifiers & Comparators	→	→	28+
	Analog Interface	→	→	28+
	Power Management	→	→	28+
	Converters	→	→	28+
Standard Analog Total		→	→	28+
Advanced		↑	→	28+

MOS MICROLOGIC		PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
MPU		↑	→	28+
MCU	8 Bit & Lower	↑	→	28+
	16 Bit	↑	→	28+
	32 Bit & Higher	↑	→	28+
MCU Total		↑	→	28+
Automotive MCU		↑	→	28+
DSP		↑	→	28+

PROGRAMMABLE LOGIC	PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
	↑	↓	28

STANDARD LOGIC	PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
Timing Products	↑	→	28+
Interface	↑	→	28+
Connectivity	↑	→	28+
Standard Logic	→	→	54

POWER	PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
FET	→	→	54
IGBT	→	↓	54
Rectifier	→	↓	22+
Other Power	→	↓	54





MEMORY	PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
Flash	NOR →	↓	18+
	NAND ↓	→	12-18
eMMC	↓	↓	12-18
EEPROM	→	→	28+
DRAM	↓	↓	18+
SRAM	→	→	12-18
Solid State Drives	↓	→	12-18

SENSORS	PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
	→	→	28+

OPTO	PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
LEDs (Low Power)	→	→	12-18
LEDs (Mid Power)	→	→	12-18
LEDs (High Power)	→	→	18+
Couplers	→	↓	18+
Fibre-Optic	→	↓	18+
Infrared	→	↓	18+
Other Opto	→	↓	18+

DISCRETE	PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
Small Signal	→	↓	18+
RF	→	→	54



↔	Stable
↗	Increasing
↘	Decreasing
SMA	Selective Market Adjustment
EOL	End-of-Life

click on a category below:

<a href="#">Analog</a>	<a href="#">High-End</a>
<a href="#">Battery</a>	<a href="#">Interconnect</a>
<a href="#">Connectivity</a>	<a href="#">Opto / Lighting</a>
<a href="#">Discrete</a>	<a href="#">Memory</a>
<a href="#">Electromechanical</a>	<a href="#">Passives</a>

# Analog

MANUFACTURER	PRODUCT	LEAD TIME (WEEKS)	TREND	PRICING	COMMENTS
Bosch Sensortec	Sensors	14-22	↔	↔	
Diodes Incorporated	Multi- Source Analog/Power	32-42	↔	↔	
	Switching Regulators	28-48	↔	↔	
FTDI Chip	Interface	32-42	↔	↗	
	Sensors	20-54	↔	↗	
Infineon	Switching Regulators	42-54	↔	↔	
	Analog and Power for Automotive (CAN/LIN/Smart FET)	48-54	↔	↔	
Maxlinear	Interface	38-42	↘	↗	
Melexis	Sensors	42-54	↗	↗	
	Signal Chain (Amplifiers and Data Converters)	32-42	↔	↔	
Microchip	Timing	32-42	↔	↔	
	Switching Regulators	42-52	↔	↔	
MPS	Switching Regulators	48-52	↘	↔	
	Sensors	18-54	↗	↗	
NXP	Interface	38-54	↔	↔	
	Analog and Power for Automotive (CAN/LIN/Smart FET)	44-54	↔	↗	



MANUFACTURER	PRODUCT	LEAD TIME (WEEKS)	TREND	PRICING	COMMENTS
ON Semiconductor	Sensors	20-54	↗	↗	
	Signal Chain (Amplifiers and Data Converters)	38-44	↔	↗	
	Timing	38-44	↔	↔	
	Multi- Source Analog/Power	38-44	↔	↔	
	Switching Regulators	38-52	↔	↗	
Panasonic	Sensors	18-28	↗	↔	
Pericom Saronix-eCera	Timing	22-28	↔	↔	
Power Integrations	Switching Regulators	18-20	↔	↔	
Renesas	Signal Chain (Amplifiers and Data Converters)	38-42	↙	↗	
	Timing	52	↔	↔	
	Interface	38-42	↙	↗	
	Switching Regulators	38-42	↙	↗	
ROHM	Sensors	26-54	↗	↗	
	Switching Regulators	52	↔	↔	
ST Microelectronics	Sensors	14-26	↙	↔	
	Signal Chain (Amplifiers and Data Converters)	38-48	↙	↔	
	Multi- Source Analog/Power	42-52	↔	↔	
	Switching Regulators	42-52	↔	↔	
	Analog and Power for Automotive (CAN/LIN/Smart FET)	42-54	↔	↔	
TE Sensor Solutions	Sensors	18-34	↗	↗	
Vishay	Sensors	26-54	↗	↔	



# Batteries

MANUFACTURER	PRODUCT	LEAD TIME (WEEKS)	TREND	PRICING	COMMENTS
Alium Batteries	Lithium Ion	22--24	↔	↗	
	Alkaline	12-14	↔	↗	
Energizer	Lithium Metal	16-18	↔	↗	
	Silver Oxide	10-12	↔	↗	
GP Batteries	Alkaline	16-18	↔	↔	
	Lithium Metal	20-22	↔	↔	
	Lithium Ion	18-20	↔	↔	
	Nickle Metal Hydride	12-14	↔	↔	
	Lead Acid	10-12	↔	↔	
	Carbon Zinc	10-12	↔	↔	
Panasonic	Alkaline	12-14	↔	↗	
	Lithium Metal	18-20	↘	↗	
	Nickle Metal Hydride	10-12	↔	↗	
	Carbon Zinc	10-12	↔	↗	
Rayovac	Alkaline	10-12	↔	↗	
	Lithium Metal	10-12	↔	↗	
	Nickle Metal Hydride	12-14	↔	↗	
	Carbon Zinc	10-12	↔	↗	
	Lithium Metal	18-20	↔	↗	
Renata Batteries	Lithium Ion	22-24	↗	↗	
	Nickle Metal Hydride	12-14	↔	↗	
	Silver Oxide	10-12	↗	↗	
	Carbon Zinc	10-12	↔	↗	



# Batteries

MANUFACTURER	PRODUCT	LEAD TIME (WEEKS)	TREND	PRICING	COMMENTS
Tadiran Batteries	Lithium Metal	14-16	↔	↗	
	Alkaline	12-14	↔	↗	
VARTA	Lithium Metal	20-26	↔	↗	
	Lithium Ion	34-40	↗	↗	
	Nickle Metal Hydride	12-14	↔	↗	



# Connectivity

MANUFACTURER	PRODUCT	LEAD TIME (WEEKS)	TREND	PRICING	COMMENTS
AMS	RFID	30-32	↗	↔	
	802.15.4/Zigbee Modules	28-34	↗	↗	
CEL	Small Signal, Schottky Diodes, PIN Diodes, Bipolar Transistors, FETs/PHEMTs, Amplifiers, Mixers & Modulators, VCOs, SS Bipolar Transistors, Wideband Transistors	32	↗	↗	
	Bluetooth Modules	28-38	↘	↗	
Infineon + Cypress	Small Signal, Schottky Diodes, PIN Diodes, Bipolar Transistors, FETs/PHEMTs, Amplifiers, Mixers and Modulators, VCOs, SS Bipolar Transistors, Wideband Transistors	28- 54	↗	↗	Cypress is now Infineon
Fibocom	Cellular Modules	18-22	↔	↔	
Kyocera AVX	Antennas	10-12	↔	↔	
	Wi-Fi Modules	38-54	↘	↔	
Laird Connectivity	Antennas	18-22	↗	↔	
	LoRa	~32-54	↗	↔	
	Cellular Modules	8-12	↔	↔	
Linx Technologies	Antennas	12-14	↗	↔	
	Transceivers/Receivers	12-14	↗	↔	
Melexis	Transceivers/Receivers	18	↔	↔	
	RFID	16-18	↔	↔	
	Wi-Fi Modules	26-28	↘	↔	
Microchip	Bluetooth Modules	26-28	↔	↔	
	Transceivers/Receivers	20-22	↔	↗	
	LoRa	34	↗	↔	
MultiTech	Cellular Modules	28-32	↔	↔	
	LoRa	~32	↗	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Murata	Wi-Fi Modules	28-52	↗	↔	
	Bluetooth Modules	28-52	↘	↔	
	Small Signal, Schottky Diodes, PIN Diodes, Bipolar Transistors, FETs/PHEMTs, Amplifiers, Mixers and Modulators, VCOs, SS Bipolar Transistors, Wideband Transistors	14-22	↔	↔	
	LoRa	54	↔	↔	
Nearson	Antennas	18	↔	↔	
NXP	Multi-Protocol/Chip Solutions	54	↗	↗	
	Transceivers/Receivers	26	↔	↗	
	RFID	28-54	↗	↗	Parts on allocation
	High Power IC's Small Signal, Schottky Diodes, PIN Diodes, Bipolar Transistors, FETs/PHEMTs, Amplifiers, Mixers and Modulators, VCOs, SS Bipolar Transistors, Wideband Transistors	54 28-54	↗ ↗	↗ ↗	
ON Semiconductor	Bluetooth Modules	18-32	↗	↔	
Panasonic	Bluetooth Modules	42-44	↘	↔	
	RFID	16-18	↔	↔	
Pulse Electronics	Antennas	10-12	↔	↔	
Semtech	Transceivers/Receivers	38	↗	↗	
	LoRa	18-54	↔	↔	
Sierra Wireless	Multi-Protocol/Chip Solutions	42-48	↗	↔	
	Cellular Modules	32-42	↘	↔	Intel based radios are at 52 weeks
Silex Technology	Wi-Fi Modules	30-54	↗	↗	
ST Microelectronics	Bluetooth Modules	32-42	↘	↗	
	Transceivers/Receivers	54	↗	↗	Capacity constraints on Spirit Radio
	RFID	32-42	↔	↗	ST25R39xx on allocation
	GPS	42-54	↗	↔	
	High Power IC's	54	↔	↔	
	LoRa	38-54	↗	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Synapse Wireless	802.15.4/Zigbee Modules	20-22	↗	↔	
Taoglas	Antennas	22-24	↗	↔	
TDK	Small Signal, Schottky Diodes, PIN Diodes, Bipolar Transistors, FETs/PHEMTs, Amplifiers, Mixers and Modulators, VCOs, SS Bipolar Transistors, Wideband Transistors	14-22	↔	↔	
Thales	Cellular Modules	20-22	↗	↔	
	Bluetooth Modules	28-54	↘	↔	
U-Blox	Cellular Modules	28-54	↗	↔	Parts are on allocation, lead time is 26+
	GPS	28-54	↔	↔	Parts are on allocation and increasing in cost
	WiFi Modules	28-54	↗	↔	





# Discrete

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Diodes Inc.	Low Voltage MOSFETS	42-54	↙	↔	
	TVS Diodes	20-32	↙	↔	
	Bridge Rectifiers	16-34	↙	↔	
	Schottky Diodes	16-54	↙	SMA	
	Rectifiers	16-34	↔	↔	
	Switching Diodes	14-54	↔	SMA	
	Small Signal MOSFETS	32-48	↔	SMA	
	Zener Diodes	16-48	↙	SMA	
	Bipolar Transistors	16-48	↙	SMA	
	Digital Transistors	16-48	↙	SMA	
	General Purpose Transistors	16-48	↙	SMA	
Logic	32-42	↔	↔		
EATON	ESD	18-22	↔	↔	
	Fuses	16-22	↔	SMA	
	Clips and Holders	14-18	↔	↗	
Everlight	Optocoupler Components	32	↙	SMA	
Fairchild (ON Semiconductor)	IGBTs	42-54	↔	↔	
	Bridge Rectifiers	36-54	↔	↔	
	Rectifiers	52-58	↔	↔	
	Switching Diodes	18-54	↔	SMA	
	Small Signal MOSFETS	32-54	↔	↗	
	Bipolar Transistors	22-54	↔	SMA	
	Optocoupler Components	20-32	↔	↔	
Infineon	Low Voltage MOSFETS	28-56	↙	↔	
	High Voltage MOSFETS	52-56	↔	↔	
	IGBTs	42-52	↔	↗	
	Wide Bandgap Mosfets	44-54	↔	↔	
	Digital Transistors	14-54	↔	SMA	
	General Purpose Transistors	14-54	↔	SMA	
	Mil-Aero Transistors	20-48	↙	↗	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
<b>Isocom Components</b>	Optocoupler Components	4-6	↔	↔	
	High Voltage MOSFETS	52-56	↔	↔	
<b>IXYS</b>	IGBTs	52-56	↔	↔	
	Thyristors/Triacs	32-52	↗	SMA	
<b>Keystone</b>	Clips and Holders	12-18	↔	SMA	
<b>Kyocera</b>	Varistors	16-24	↔	↔	
<b>Lite-On</b>	Optocoupler Components	26-32	↔	↔	
	ESD	16-32	↔	↔	
	Diode Arrays	18-32	↙	SMA	
	Varistors	22-38	↙	↔	
	Wide Bandgap Mosfets	44-54	↔	↔	
<b>Littelfuse</b>	Fuses	16-22	↔	SMA	
	PTC Fuses	22-32	↔	↔	
	Clips and Holders	16-22	↔	↔	
	Thyristors/Triacs	26-42	↔	↔	
	TVS Diodes	22-32	↙	SMA	
	Sensors	18-32	↔	SMA	
	Low Voltage MOSFETS	22-26	↔	↔	
	High Voltage MOSFETS	22-28	↔	↔	
	ESD	18-22	↔	↔	
<b>Micro Commercial Components</b>	TVS Diodes	18-22	↔	↔	
	Schottky Diodes	12-22	↙	↔	
	Switching Diodes	12-22	↙	↔	
	Zener Diodes	14-28	↙	↔	
	General Purpose Transistors	12-18	↙	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Microchip	Wide BandGap Mosfets	26-30	↔	↔	
	High Voltage MOSFETS	44-54	↔	↔	
Microsemi	IGBTs	44-54	↔	↔	
	Mil-Aero Diodes	34-58	↔	↔	
	Mil-Aero Transistors	34-62	↔	↔	
	Low Voltage MOSFETS	50-54	↔	↗	
	ESD	18-52	↔	↔	
	Schottky Diodes	10-52	↙	SMA	
	Switching Diodes	10-52	↙	↗	
Nexperia	Small Signal MOSFETS	14-52	↙	SMA	
	Zener Diodes	10-52	↙	SMA	
	Bipolar Transistors	10-52	↙	SMA	
	Digital Transistors	10-52	↙	SMA	
	General Purpose Transistors	10-52	↙	SMA	
	Logic	10-14	↔	↔	
	Low Voltage MOSFETS	38-54	↙	↗	
	High Voltage MOSFETS	38-54	↔	↗	
	ESD	22-52	↔	↔	
	Wide Bandgap Mosfets	44-54	↔	↔	
	Schottky Diodes	18-54	↔	↗	
	Rectifiers	50-65	↔	↔	
ON Semiconductor	Switching Diodes	18-54	↔	↗	
	Small Signal MOSFETS	18-54	↔	↗	
	Zener Diodes	18-54	↔	↗	
	Bipolar Transistors	18-54	↔	↗	
	Digital Transistors	22-54	↔	↗	
	General Purpose Transistors	22-54	↔	↗	
	Logic	22-32	↙	↔	
ProTek Devices	Diode Arrays	14-18	↗	↗	
Renesas	Optocoupler Components	54	↗	↗	
	High Voltage MOSFETS	44-54	↔	↔	
	Wide Bandgap Mosfets	44-54	↔	↔	
	Schottky Diodes	22-54	↔	↔	
ROHM	Switching Diodes	22-54	↔	↔	
	Digital Transistors	22-54	↔	↗	
	General Purpose Transistors	22-54	↔	SMA	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Schurter	Fuses	22-42	↗	↗	
	Clips and Holders	22-32	↗	↗	
Semtech	Diode Arrays	22-24	↔	↔	
	Low Voltage MOSFETS	52-56	↔	↔	
	High Voltage MOSFETS	50-54	↔	↔	
	IGBTs	50-54	↔	↔	
	ESD	32-48	↔	↔	
ST Microelectronics	Wide Bandgap Mosfets	44-54	↔	↔	
	Thyristors/Triacs	42-52	↔	SMA	
	TVS Diodes	32-42	↔	↔	
	Rectifiers	50-52	↔	↔	
	Bipolar Transistors	22-42	↔	SMA	
TDK EPCOS	Varistors	24-42	↔	↔	
TE Connectivity	PTC Fuses	32-36	↔	↔	
	Low Voltage MOSFETS	54-68	↔	↔	
	High Voltage MOSFETS	54-68	↔	↔	
	TVS Diodes	14-48	↙	↔	
Vishay	Bridge Rectifiers	28-82	↔	↔	
	Rectifiers	14-78	↔	↔	
	Zener Diodes	30-62	↔	SMA	
	Optocoupler Components	54+	↙	SMA	



# Electromechanical

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Abracon	Timing	14-56+	↙	↗	Tuning Fortks-32.7668KHZ and 40-52+ weeks, TCXO's are on allocation due to AKM fire
ADDA	Fans	22-26	↔	↔	
Alps Electric	Switches	26-34	↗	↔	
American Zettler	Relays	18-54+	↔	↔	
Bivar	Hardware	12-18	↔	↔	
Boyd	Fans	14-16	↗	↗	
	Heatsinks	18-26	↔	↗	
C&K	Switches	14-32	↔	↔	
Churod Electronics	Relays	10-32	↔	↔	
Citizen Finedevice	Timing	14-54	↔	↗	Tuning Fortks-32.7668KHZ and 40-52+ weeks, TCXO's are on allocation due to AKM fire
COSEL	Power Supplies (AC/DC)	50	↗	↔	
	Power Supplies (DC/DC)	50	↗	↔	
CTS	Switches	10-12	↔	↔	
	Timing	14-54	↔	↗	Tuning Fortks-32.7668KHZ and 40-52+ weeks, TCXO's are on allocation due to AKM fire
CUI Inc	Power Supplies (AC/DC)	26-54+	↗	↔	
	Power Supplies (DC/DC)	18-54+	↙	↔	
	Heatsinks	12-14	↔	↔	
Delta	Fans	42-54	↗	↔	
Diodes Inc	Timing	12-52	↔	↔	Tuning Fortks-32.7668KHZ and 40-52+ weeks, TCXO's are on allocation due to AKM fire



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
E-Switch	Switches	18-20	↔	↔	
ECS Inc.	Timing	16-54+	↔	↗	Tuning Fortks-32.7668KHZ and 40-52+ weeks, TCXO's are on allocation due to AKM fire
EPSON Electronics America	Timing	28-42+	↙	↗	Tuning Fortks-32.7668KHZ and 40-52+ weeks, TCXO's are on allocation due to AKM fire
Essentra Components	Hardware	14-14	↗	↗	
Fox	Timing	12-42+	↔	↗	Tuning Fortks-32.7668KHZ and 40-52+ weeks, TCXO's are on allocation due to AKM fire
Grayhill	Switches	22-26	↔	↔	
Heyco	Hardware	12-14	↔	↗	
Hongfa	Relays	18-54+	↔	SMA	
Infineon	Relays	42-54	↔	↗	
IXYS	Relays	12-32	↔	↔	
Keystone	Hardware	14-16	↔	↗	
Kyocera International	Timing	30	↔	↔	Tuning Fortks-32.7668KHZ and 40-52+ weeks, TCXO's are on allocation due to AKM fire
Meanwell	Power Supplies (AC/DC)	22-30	↙	↗	
Microchip	Timing	14-28	↔	↗	Tuning Fortks-32.7668KHZ and 40-52+ weeks, TCXO's are on allocation due to AKM fire
Murata	Timing	10-12	↔	↔	Tuning Fortks-32.7668KHZ and 40-52+ weeks, TCXO's are on allocation due to AKM fire
Murata Power Solutions	Power Supplies (AC/DC)	28-54	↗	↗	
	Power Supplies (DC/DC)	22-42	↗	↗	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
NKK Switches	Switches	12-20	↗	↗	
NMB	Fans	40-52	↔	↔	
Ohmite	Fans	12-14	↗	↗	
Orion Fans	Fans	32-34	↔	↗	
Panasonic	Relays	16-32	↔	↗	
	Switches	12-14	↔	↔	
Qualtek	Fans	22-26	↔	↔	
Raltron	Timing	12-42	↔	↔	Tuning Fortks-32.7668KHZ and 40-52+ weeks, TCXO's are on allocation due to AKM fire
RECOM	Power Supplies (AC/DC)	26-74+	↗	↔	
	Power Supplies (DC/DC)	16-38	↗	↔	
Rosenberg	Fans	18-20	↔	↔	
Schneider Electric	Relays	18-20	↔	↔	
Song Chuan	Relays	26-62	↔	↔	
SUNON	Fans	32-44	↔	↗	
TE Connectivity Sensors	Relays	14-16	↔	↔	All stable except the IM ready Series-allocation 52+ weeks
	Switches	12-14	↔	↔	
Vicor	Power Supplies (AC/DC)	28-34	↔	↗	
	Power Supplies (DC/DC)	28-34	↔	↗	
Wakefield Thermal	Heatsinks	12-14	↔	↔	
Wall Industries	Power Supplies (AC/DC)	10-12	↔	↔	
	Power Supplies (DC/DC)	10-12	↔	↔	
ZF Electronics	Switches	20-22	↔	↗	



# High-End

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
AZ Displays	LCD's	36-40	↔	↔	
Compulab	SOM	44	↔	↔	
Cypress	8 bit MCU	48-54	↔	↔	
	32 bit MCU	48	↗	↔	
	USB	54+	↔	↔	
	Automotive	34-48	↔	↔	
Formerica	Fibre Optic Transceivers	14-18	↙	↔	
Infineon	Automotive	Allocation	↔	↔	
Lattice Semiconductor	FPGA	44-54+	↙	↗	
Microchip	8 bit MCU	38-54+	↙	↔	
	32 bit MCU	38-54+	↙	↔	
	PHY/ Ethernet	32-54	↔	↔	
	USB	54+	↔	↔	
Microsemi	32 bit MPU	32-54	↔	↔	
	FPGA	44-54+	↙	↔	
	8 bit MCU	38-54	↙	↔	
NXP	32 bit MCU	28-54	↙	↔	
	Automotive	38-54	↔	↔	
	32 bit MPU	34-54	↙	↔	
	Network Processors	28-44	↙	↔	
Renesas Synergy	32 bit MCU	26	↙	↗	
Renesas	8 bit MCU	42	↙	↗	
	32 bit MCU	42	↙	↗	
	Automotive	48	↔	↔	
	32 bit MPU	48	↔	↔	
Sharp	LCDs	42-46	↔	↔	
ST Microelectronics	8 bit MCU	50	↙	↔	
	Automotive	42-54	↔	↔	
	32 bit MPU	28-34	↙	↔	
	STM32F0- 32 bit MCU	24	↙	↔	
	STM32F1- 32 bit MCU	24	↙	↔	
	STM32L- 32 bit MCU	24	↙	↔	
	Balance 32 bit MCU	50	↙	↔	
STM32F2/F4/F7/H7	50	↙	↔		
Zilog	8 bit MCU	26-42	↗	↗	





# Interconnect

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Adam Tech	I/O Connectors	18-24	↙	↔	
	PCB Connectors	18-24	↙	↔	
Altech Corp.	Terminal Blocks & Crimps	14	↔	↗	
Amphenol Communications Solutions	D-Sub Connectors	10-12	↔	↔	
	Data & Telecom	10-12	↔	↔	
	PCB Connectors	10-12	↔	↔	
	FFC/FPC	10-12	↔	↔	
Amphenol Sine System	Circular Connectors	26	↔	↔	
ASSMAN WSW Components	Data & Telecom	22	↔	↔	
	PCB Connectors	22	↔	↔	
	IC Sockets	22	↔	↔	
Bulgin	Circular Connectors	18-20	↗	↗	
EDAC	PCB Connectors	16-24	↔	↔	
Global Connector Technology	PCB Connectors	10-12	↔	↔	
	FFC/FPC	10-12	↔	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
HALO Electronics	Data & Telecom	10-45	↙	↔	
HARTING	PCB Connectors	12-14	↔	↗	
Hirose Electric	PCB Connectors	18-28	↙	↔	
	RF Connectors	18-28	↙	↔	
	FFC/FPC	18-28	↙	↔	
JST	PCB Connectors	28-54	↔	↗	
Mil-Max	PCB Connectors	6-8	↔	↗	
	IC Sockets	6-8	↔	↗	
Ouipiin	PCB Connectors	16-22	↙	↗	
Sullins	PCB Connectors	8-10	↔	↔	
TE Connectivity	Automotive Connectors	32-42	↙	↗	
	Circular Connectors	30-32	↙	↗	
	Relays	38-40	↙	↗	
	D-Sub Connectors	10-12	↔	↗	
	Data & Telecom	10-12	↙	↗	
	PCB Connectors	18-20	↙	↗	
	RF Connectors	14-16	↔	↗	
	IC Sockets	8-10	↔	↗	
	Terminal Blocks & Crimps	16-18	↔	↗	
WAGO	Lighting Connectors	10-12	↔	↗	
	Terminal Blocks & Crimps	16	↔	↗	
WAGO	Lighting Connectors	16	↔	↗	
	Terminal Blocks & Crimps	22	↔	↔	



# Lighting Solutions & Opto

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Bridgelux	Chip On Board (CoB)	12-14	↔	↔	
Dialight	Indication LEDs	12-18	↔	↗	
	6V (LED Optics)	12-18	↔	↔	
Everlight	Automotive LEDs (AEC-Q101 Certified)	10-12	↔	↔	
	Infrared Components/ LED	16-18	↗	↔	
	Indication LEDs	16-18	↗	↔	
	UV LEDs	10-12	↔	↔	
Excellence Optoelectronics Inc.	Automotive LEDs (AEC-Q101 Certified)	10-12	↔	↔	
General Luminaire	Standard Light Engines (Level 2 Boards)	16-18	↔	↔	
Inolux	Indication LEDs	8-10	↔	↔	
Kingbright	LED Displays	12-14	↔	↔	
	Indication LEDs	10-12	↔	SMA	
Lite-On	Infrared Components/ LED	16-18	↔	↔	
	LED Displays	16-18	↔	↔	
	Indication LEDs	18-22	↔	↔	
Lumex	LED Displays	18	↔	↔	
	Indication LEDs	10-16	↔	↔	
Lumileds	Illumination High Power LEDs (White)	10-14	↙	SMA	
	Illumination High Power LEDs (Colors)	10-12	↔	SMA	
	Illumination High Power LEDs (White & Colors)	10-12	↔	SMA	
	Horitcultural Mid Power LEDs (White & Colors)	10-12	↙	↔	
	Automotive LEDs (AEC-Q101 Certified)	16-18	↔	↔	
	Chip On Board (CoB)	10-12	↔	↔	
	Standard Light Engines (Level 2 Boards)	20-28	↔	↔	
	Infrared Components/ LED	28	↔	↔	
UV LEDs	Call	↗	↔		
Meanwell	LED Drivers	12-22	↙	↔	
Murata	Lighting Controls	28-32	↔	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Nichia	Illumination High Power LEDs (White)	8-12	↔	↔	
	Illumination High Power LEDs (Colors)	8-12	↔	↔	
	Illumination High Power LEDs (White & Colors)	10-12	↔	↔	
	Horitcultural Mid Power LEDs (White & Colors)	10-12	↔	↔	
	Chip On Board (CoB)	14-16	↔	↔	
ROHM	Infrared Components/ LED	8-10	↔	↔	
	Indication LEDs	22-48	↔	↗	
Samsung LED	Illumination High Power LEDs (White)	8-10	↔	SMA	
	Illumination High Power LEDs (White & Colors)	10-12	↔	↔	
	Horitcultural Mid Power LEDs (White & Colors)	10-12	↔	↔	
	Chip On Board (CoB)	8-10	↔	↔	
	Standard Light Engines (Level 2 Boards)	10-12	↔	↔	
Seoul Semiconductor	Illumination High Power LEDs (White)	10-12	↔	↔	
	Illumination High Power LEDs (White & Colors)	8-10	↔	↔	
	Horitcultural Mid Power LEDs (White & Colors)	8-10	↔	SMA	
	Chip On Board (CoB)	10-12	↔	↔	
	Standard Light Engines (Level 2 Boards)	12-14	↔	↔	
Seoul Viosys	UV LEDs	10-12	↔	↔	
Stanley Electric	LED Displays	14	↔	↔	
	Indication LEDs	12-14	↔	↔	
TE Connectivity	6A (Heat Sinks, LED Holders)	22-52	↔	↔	
TT Electronics- Optek Technology	Infrared Components/ LED	28-46	↗	↗	
VCC	Indication LEDs	14	↔	↗	
Vishay	Infrared Components/ LED	22-54	↗	↗	
	Indication LEDs	22-54	↗	↗	
	UV LEDs	16-18	↗	↔	



# Memory

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
ADATA	Memory Modules	10-12	↔	↔	
	eMMC	12-14	↙	SMA	
	Memory Cards	10-14	↙	SMA	
	Solid State Drives (SSD)	10-14	↙	SMA	
Alliance Memory	PC (Commodity) DRAM	4-22	↙	SMA	
	Mobile RAM	18-54	↔	↔	
	SRAM	14-48	↔	↔	
	NOR Flash	14-22	↔	↔	
	NAND Flash	10-26	↙	↔	
	eMMC	16-18	↔	↔	
Cypress	SRAM	14-54	↔	↔	
	NOR Flash	34-54	↔	↗	
	FRAM & NVSRAM	18-54	↔	↔	
Everspin Technologies	MRAM	14-30	↔	↗	
Greenliant	NOR Flash	18-28	↔	↔	
	eMMC	18-28	↙	↔	
	Memory Cards	10-18	↙	SMA	
	Solid State Drives (SSD)	10-18	↙	SMA	
Kingston	PC (Commodity) DRAM	6-8	↙	SMA	
	Memory Modules	4-8	↔	↔	
	eMMC	6-12	↙	SMA	
	Memory Cards	6-22	↙	SMA	
	Solid State Drives (SSD)	4-18	↙	SMA	
Macronix	NOR Flash	14-22	↙	SMA	
	NAND Flash	10-14	↔	SMA	
	eMMC	54-56	↗	↗	Parts on allocation, MXIC is not quoting and not taking new orders for the time being



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Microchip	SRAM	48-50	↔	↗	
	NOR Flash	54-102	↗	↗	
	EEPROM	54-102	↗	↗	
	EPROM	14-28	↔	↗	
ON Semiconductor	SRAM	22-42	↔	↔	
	EEPROM	22-42	↔	↔	
Renesas	SRAM	22-24	↔	↔	
Samsung	PC (Commodity) DRAM	54-56	↔	↔	Parts on allocation, Samsung is not quoting and not taking new orders for the time being
	Memory Modules	54-56	↔	↔	
	eMMC	54-56	↔	↔	
	Solid State Drives (SSD)	54-56	↔	↔	
SkyHigh Memory	SLC NAND Flash	20-22	↙	SMA	
	eMMC	18-20	↙	SMA	
STMicroelectronics	EEPROM	54-56	↔	↔	Now on allocation



# Passives

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Apl Delevan	Inductors	16-20	↔	↔	
Cornell Dubilier Electronics	Electrolytic	32-52	↔	↗	
	Capacitor	28-42	↙	↗	
CTS	Resistor Networks	18-42	↗	↔	
Eaton	Capacitors- Supercapacitors	32-54+	↔	↗	
	Inductors	22-32	↙	↔	
ELNA	Capacitors- Supercapacitors	32-54+	↔	↔	
HALO Electronics	Inductors	48-58	↔	↔	
Murata	Filters	18-22	↙	↔	
	Inductor / Transformers	14-22	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	18-20	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	18-20	↔	↔	
	Leaded Capacitors- Ceramic	22-26	↔	↔	
	Specialty Capacitors	26-28	↔	↔	
	Electrolytic	24-42	↙	↔	
NIC Components	Filters	16-22	↗	↔	
	Inductors	16-22	↔	↔	
	Fixed Resistors	14-20	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	20-22	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	18-20	↔	↔	
	Leaded Capacitors- Ceramic	28-30	↔	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Nichicon	Electrolytic	26-28	↙	↗	
	Electrolytic	32-34	↙	↔	
	Capacitors- Polymer Tantalum	22	↔	↔	
Panasonic	Inductors / Transformers	24-30	↔	↔	
	Fixed Resistors	32-50	↙	↔	
	Resistor Networks	54+	↗	↔	
Paktron Capacitors	Capactors- Film	14-18	↔	↔	
Samsung Electro-Mechanics	Fixed Resistors	46-48	↔	↗	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	16-18	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	18-20	↔	↔	
	Surface Mount General Capacitors-Ceramic *Automotive Upgrade	20-22	↔	↔	
Stackploer Electronics	Fixed Resistors	20-32	↔	↔	
Sumida	Inductors	28-42	↔	↔	
Taiyo Yuden	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	20-26	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	32-36	↔	↔	
	Surface Mount General Capacitors-Ceramic *Automotive Upgrade	32-54	↔	↔	
TDK	Filters	18-32	↗	↗	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	22-26	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	24-30	↔	↔	
	Surface Mount General Capacitors-Ceramic *Automotive Upgrade	32-44	↔	↔	
TDK EPCOS	Capacitors- Film	26-54+	↔	↗	
	Filters	28-38	↗	↔	
	Inductors / Transformers	18-22	↔	↔	





MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
TT Electronics- BI Technologies	Trimmers & Pots	42-54	↔	↔	
TT Electronics- IRC	Fixed Resistors	22-54	↗	↗	
United Chemi-Con	Electrolytic	32-52+	↙	↔	
Viking	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	18-20	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	26-30	↔	↔	
Vishay	Trimmers & Pots	12-28	↗	↗	
	Capacitors- Film	22-32	↔	↗	
	Capacitors- Supercapacitors	16-22	↔	↔	
	Capacitors- Tantalum Molded	22-26	↙	↔	
	Capacitors- Tantalum Conformals	26	↔	↔	
	Capacitors- Polymer Tantalum	22-26	↔	↔	
	Inductors / Transformers	14-22	↔	↔	
	Fixed Resistors	54+	↔	↗	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	32-42	↔	↔	
	Leaded Capacitors- Ceramic	46-48	↔	↔	
	Specialty Capacitors	42-46	↔	↔	
WIMA	Capacitors- Film	22-28	↙	↔	
Würth Elektronik	Inductors / Transformers	28-42	↔	↔	
Yageo	Fixed Resistors	26-30	↔	↔	
	Resistor Networks	26-30	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	18-20	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	20-22	↔	↔	
	Surface Mount General Capacitors- Ceramic *Automotive Upgrade	28-32	↔	↔	

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