

# Inkjet Printer

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# Inkjet Printer

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## **VISHAY components used inkjet printers include:**

- Power MOSFETS
- Opto Sensors and Couplers
- Schottky Devices
- Ultrafast Rectifiers
- Zener Diodes
- Switching Diodes
- High-Voltage Resistors
- Inductors/EMI Filters
- ESD Diodes

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## **Application Overview**

Inkjet printers operate by propelling variably-sized droplets of liquid or molten material onto almost any printable material. They are the most common type of computer and consumer printer due to their low cost, high quality of output, capability of printing in vivid color, and ease of use. There are three main technologies used in contemporary inkjet printers: thermal, piezoelectric, and continuous. Desktop inkjet printers, as used in offices or at home, all use aqueous inks. These inks are inexpensive to manufacture, but are difficult to control on the surface of media, often requiring specially coated media and sensors to control the quality and position of them. Inkjets can print finer, smoother details through higher print head resolution, and consumer inkjets with photographic-quality printing are widely available. Inkjets have the advantages of practically no warm-up time and lower cost per page. To keep overall printing costs low, efficient power supplies and intelligent power management such as fast wake-up and auto-power-off are essential.

# Inkjet Printer : ACCESS SENSORS, Door Sensor

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## IR LED

Product Name	Status	Description	Features	Package	Q-Level
TSML1000		High-Power SMD IRED GaAIAs/GaAs	Half Intensity Angle= $\pm 12^\circ$ $\lambda_p = 950 \text{ nm}$ . 5V/0.1A, $V_f = 1.2 \text{ V}$	Custom	

# Inkjet Printer : CONTROL BOARD, DSP Logic

## External Port Current Cut-Off Circuit

Product Name	Status	Description	Features	Package	Q-Level
SI1869DH-T1-E3		Load Switch with Level Shifter for USB Port	P+N Channel MOSFET, Id up to 1.2 A, rDSon 0.165 Ω@Vin = 4.5 V	SMD SC70-6	

## Filter Capacitor

Product Name	Status	Description	Features	Package	Q-Level
VJ...W1BC		MLCC Capacitor, SMD	MLCC Ceramic Capacitors	SMD 0603 to 0805 EIA Size	

## Noise Filtering

Product Name	Status	Description	Features	Package	Q-Level
ICM0805ER900M		Surface-Mount Common Mode Choke	Impedance 90 ohm@100MHz, 50-V/0.33-A Rated Current	SMD Size 0805	
ILHB0805RK601V		High-Current Multilayer Ferrite Beads	Impedance 600 ohm@100MHz, Rated Current 2 A, DC resistance 0.1 ohm	SMD Size 0805	

## Schottky Diode

Product Name	Status	Description	Features	Package	Q-Level
B160-E3	NEW	Schottky Barrier Rectifier, SMD, Low Vf, Low Leakage Current Small Package	60 V/1 A	SMD SMA	
RS1J-E3/61T		Fast-Switching Rectifier	600 V/1 A	SMD SMA	
S1G-E3		Glass Passivated Rectifier General Purpose Application	400 V/1 A	SMD SMA	
S1GA-E3	NEW	Glass Passivated Rectifier General Purpose Application	400 V/1 A	SMD SMA	
SS16-E3		Schottky Barrier Rectifier, SMD, Low Vf, Low Leakage Current Small Package	60 V/1 A	SMD SMA	
SS24-E3		Schottky Barrier Rectifier, SMD, Low Vf, Low Leakage Current Small Package	40 V/2 A	SMD SMB	
SS26-E3		Schottky Barrier Rectifier, SMD, Low Vf, Low Leakage Current Small Package	60 V/2 A	SMD SMB	
SS26S-E3	NEW	Schottky Barrier Rectifier, SMD, Low Vf, Low Leakage Current Small Package	60 V/2 A	SMD SMA	
SS2P4-E3	NEW	SMP Package, Low Vf, Low Leakage Current	40 V/2 A	SMD SMP	
SS33-E3		Schottky Barrier Rectifier, SMD, Low Vf, Low Leakage Current Small Package	30 V/3 A	SMD SMC	
SS34-E3		Schottky Barrier Rectifier, SMD, Low Vf, Low Leakage Current Small Package	40 V/3 A	SMD SMC	
SS3P3L-E3	NEW	Schottky Barrier Rectifier, SMD, Low Vf, Low Leakage Current SMP Package	30 V/3 A	SMD SMP	
SS3P4-E3	NEW	SMP Package, Low Vf, Low Leakage Current	40 V/3 A	SMD SMP	

Product Name	Status	Description	Features	Package	Q-Level
SS3P4L-E3	NEW	Schottky Barrier Rectifier, SMD, Low Vf, Low Leakage Current SMPC Package	40 V/3 A	SMD SMPC	

#### Small-Signal MOSFET

Product Name	Status	Description	Features	Package	Q-Level
2N7002E-E3		N-Channel Small-Signal Switching MOSFET	60V/0.24A. Rdson=1.2ohm, Qg = 0.4 Nc	SMD SOT-23	
2N7002K-E3	NEW	N-Channel Small-Signal Switching MOSFET	60V/0.3A. Rdson=1ohm, Qg = 0.4 nC	SMD SOT-23	

#### Small-Signal Schottky Diode

Product Name	Status	Description	Features	Package	Q-Level
BAS40-00-V		Small-Signal Schottky Diode	Single Schottky Diode, 40V/0.2A with Vf = 0.38 V	SMD SOT-23	
MBR0540PBF		Schottky Diode for Low-Voltage, High-Frequency Application	40 V/0.5 A, Vf = 0.48V@IF = 0.5A@25°C	SMD SOD123	

#### Thick Film Resistor

Product Name	Status	Description	Features	Package	Q-Level
CRA series		Thick Film Chip Resistor Array, SMD	R = 1 Ω to 10 MΩ; Tol = 1% and 5%; TCR = 100...200 ppm	SMD 0402 to 2512 EIA Size	
CRCW...E3		Thick Film Chip Resistor, SMD	R = 1 Ω to 10 MΩ; Tol = 1% and 5%; TCR = 100...200 ppm	SMD 0201 to 2512 EIA Size	

#### USB Load Switch

Product Name	Status	Description	Features	Package	Q-Level
SiP4610ADT-T1-E3		High-Side Load Switch	1 A Continuous Current, 2.4 V to 5.5 Vin User-Settable Curr. Limit	SMD TSOT23-5	
SiP4612ADVP-T1-E3	NEW	High-Side Load Switch	1 A Continuous Current, 2.4 V to 5.5 Vin User-Settable Curr. Limit	SMD PPAK TSC75-6	

#### Zener Diode

Product Name	Status	Description	Features	Package	Q-Level
BZG04-47TR		Zener Diode with Surge Current Specification	3-W Zener Diode at 47 V Standoff Voltage and Clamping at 78.6 V	SMD DO214AC	
BZX84C10-V-GS08		300-mW Small-Signal Zener Diode	9.4-10.6 V Zener voltage, 5% Tolerance, Leakage Current 0.2 uA	SMD SOT-23	
BZX84C3V6-V-GS08		300-mW Small-Signal Zener Diode	3.4-3.8 V Zener voltage, 5% Tolerance, Leakage Current 0.5 uA	SMD SOT-23	
BZX84C8V2-V-GS08		300-mW Small-Signal Zener Diode	7.7-8.7 V Zener voltage, 5% Tolerance, Leakage Current 0.7 uA	SMD SOT-23	

## Inkjet Printer : CONTROL BOARD, Ink Motor Drive

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### Driver Switch

Product Name	Status	Description	Features	Package	Q-Level
MSS1P6-E3	NEW	Schottky Barrier Rectifier, SMD, Low Vf, Low Leakage Current Small Package	60 V/1 A	SMD uSMP	

### Freewheeling Diode Due to Induction Load

Product Name	Status	Description	Features	Package	Q-Level
Si2318CDS	NEW	N-Channel 40V (D-S) MOSFET	Rdson=0.042ohm, ID=5.6A	SMD SOT-23	

## Inkjet Printer : CONTROL BOARD, Print Head

### Current Sensing

Product Name	Status	Description	Features	Package	Q-Level
CRCW0603...LR		Low-Value Thick Film Chip Resistor	R=0.1to 0.91Ω; Tol.= 5%; TCR = 200 ...400 ppm	SMD 0402 to 2512 EIA Size	

### Voltage Calibration MOSFETs

Product Name	Status	Description	Features	Package	Q-Level
Si3460DDV		N-Channel 20V (D-S) MOSFET	Rdson=0.028ohm, ID=7.9A; VGX=4.5V; Qg (Typ.)= 6.7nC	SMD TSOP-6	
SI4840BDY-T1-E3		N-Channel Switching MOSFET	40 V/14 A (10sec) ID = 10A (steady state). rDSon=7.5mohm, Qg=18.5nC	SMD SO-8	
SI7848BDP-T1-E3		N-Channel Switching MOSFET	40V/47A, Rdson=7.4mohm, Qg = 33nC	SMD PPAK SO-8	
SI7850DP-T1-E3		N-Channel Switching MOSFET	60V/10A, Rdson=0.018ohm, Qg = 18nC	SMD PPAK SO-8	
SIE832DF-T1-E3		N-Channel Switching MOSFET	40V/50A, Rdson=4.6mohm, Qg = 51nC	SMD PolarPAK	
SUD50N04-16P-E3		N-Channel Switching MOSFET	40V/10A, Rdson=0.0125ohm, Qg = 39nC	SMD TO-252	
SUD50N06-36-E3		N-Channel Switching MOSFET	60V/6A, Rdson=0.028ohm, Qg = 21nC	SMD TO-252	

## Inkjet Printer : IMAGE AND DROP SENSORS, Drop Detection Sensor

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### Drop Detection Sensor

Product Name	Status	Description	Features	Package	Q-Level
K729P	SOON	Transmissive Optical Sensor, Large Gap, Designed for Print Head Drop Speed, Nozzle Testing, ...		Custom	

## Inkjet Printer : IMAGE AND DROP SENSORS, Index Sensor

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### Index Sensor

Product Name	Status	Description	Features	Package	Q-Level
K720P	SOON	Transmissive Optical Sensor		Custom	
K721P	SOON	Transmissive Optical Sensor, Reduced Height Compared to K720P		Custom	

### Standard Index Sensor

Product Name	Status	Description	Features	Package	Q-Level
TCST1202		Transmissive Optical Sensor with Phototransistor Output ton = 10 us, toff = 8 us.	11.9x6.3x10.8mm, Gap:3.1mm E: Vr=6V, If=60mA, Vf=1.25V D: Vceo = 70V, Ic = 100mA	Custom	
TCST5250		Transmissive Optical Sensor with Phototransistor Output ton = 15 us, toff = 8 us.	14.3x6x9.5mm; Gap:2.7mm E: Vr=6V, If=60mA, Vf=1.25V D: Vceo = 70V, Ic = 100mA	Custom	

# Inkjet Printer : IMAGE AND DROP SENSORS, Ink Level Sensor

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## Level Sensor

Product Name	Status	Description	Features	Package	Q-Level
K711P	SOON	Ink Level Sensing Media Level Detection,		Custom	

## Inkjet Printer : IMAGE AND DROP SENSORS, Pen Alignment Sensor

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### Pen Alignment and Media Detection

Product Name	Status	Description	Features	Package	Q-Level
K770P	SOON	Reflective Optical Sensor, Pen Alignment and Media Detection, Far Media Distance 10 mm		Custom	

## Inkjet Printer : IMAGE AND DROP SENSORS, Transparency Sensor

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### Transparency Sensor

Product Name	Status	Description	Features	Package	Q-Level
K728P	SOON	Transmissive Optical Sensor, Dust-Optimized Polysulfon Housing (no apertures)		Custom	

## Inkjet Printer : INTERFACE / PERIPHERALS, General Purpose

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### ESD Protection

Product Name	Status	Description	Features	Package	Q-Level
GMF05LC-HS3		5-Line ESD Protection	Ipp = 5A and Ppp = 70W, 30-KV ESD Immunity	SMD LLP75-6A	
GSOT03C		2-Line ESD Protection	Ipp = 30A and Ppp = 369W, 30-KV ESD Immunity	SMD SOT-23	
VBUS052BD-HTF		2-Line ESD Protection	Ipp = 3A, Ppp = 45W, 15-KV ESD Immunity	SMD LLP75-3L	
VESD05A51B-02V		1-Line ESD Protection	Ipp = 3A, Ppp = 33W, 20-KV ESD Immunity	SMD SOD523	
VESD05A5A-HS3		5-Line ESD Protection	Ipp = 2.5A, Ppp = 33W, 30-KV ESD Immunity	SMD LLP75-6A	
VESD05A6-HA3		6-Line ESD Protection	Ipp=5A, Ppp = 60W, 15-KV ESD Immunity	SMD LLP75-7A	
VESD05A8A-HNH		8-Line ESD Protection Diode Array	Ipp=5A, Ppp = 65W, 30-KV ESD Immunity	SMD LLP1713-9L	

## Inkjet Printer : INTERFACE / PERIPHERALS, USB

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### ESD Protection

Product Name	Status	Description	Features	Package	Q-Level
VBUS054B-HS3/HSF		4-Line BUS Port ESD Protection Protects 2x USB Ports or 1x USB OTG Port	Ipp = 3A, Cd ≤ 1PF, VBR min = 8 V, 1-KV ESD immunity	SMD LLP75-6A/6L	
VESD05A4A-HS4		4-Line ESD Protection Diode Array	Ipp = 2.5A, Ppp = 30W, 15-KV ESD Immunity	SMD LLP1010-6L	

## **Inkjet Printer** : MEDIA AND POSITION SENSORS, Pen Alignment/Color Detection Sensor

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### Pen Alignment and Color Detection

<b>Product Name</b>	<b>Status</b>	<b>Description</b>	<b>Features</b>	<b>Package</b>	<b>Q-Level</b>
K783P	SOON	Reflective Optical Sensor, Pen Alignment and Color Detection and EEPROM for Calibration Data Storage		Custom	

## **Inkjet Printer** : MEDIA AND POSITION SENSORS, Pen Alignment/Color Detection/Paper Detection Sensor

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### Pen Alignment / Color Detection/ Media Detection

<b>Product Name</b>	<b>Status</b>	<b>Description</b>	<b>Features</b>	<b>Package</b>	<b>Q-Level</b>
K784P	SOON	Reflective Optical Sensor, Pen Alignment Media Detection (2-Ch), Color Detection EEPROM for Calibration Data Storage		Custom	

## **Inkjet Printer** : MEDIA AND POSITION SENSORS, Pen Alignment/Paper Detection Sensor

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### Pen Alignment and Media Detection

<b>Product Name</b>	<b>Status</b>	<b>Description</b>	<b>Features</b>	<b>Package</b>	<b>Q-Level</b>
K797P	SOON	Reflective Optical Sensor, Pen Alignment Media Detection, Short Media Distance ~3 mm		Custom	

## Inkjet Printer : POWER SUPPLY, Buck Capacitance

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### Snap-In Aluminum Capacitor

Product Name	Status	Description	Features	Package	Q-Level
152RMH		Aluminum Capacitors; Radial; Miniature; High Voltage	1.0-220 $\mu$ F; Vr=200-450V; Temp. Range= -40 -+105°C; Life@105 °C = 3000h-4000h	TH / Radial 10x12 to 18x35mm	

## Inkjet Printer : POWER SUPPLY, EMI Filtering

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### X Capacitor

Product Name	Status	Description	Features	Package	Q-Level
339 series		Interference Suppression Film Capacitors MKP Radial Potted Type	X2-Class; 0.001 to 4.7 $\mu$ F AC 275 V; DC 630 V; Temp = 110 °C;	TH / Radial 7.5-27.5mm Pitch Radial	UL EN CAS

### Y Capacitor

Product Name	Status	Description	Features	Package	Q-Level
VY1		Ceramic Disc Capacitors; Y Capacitor; Safety-Standard-Approved Disc Capacitor;	C = 10 pF to 4700 pF; (Y1): 500 V (AC), 50 Hz; Temp=- 40 °C to + 125 °C;	TH / Radial 10-mm Lead Pitch	
VY2		Ceramic Disc Capacitors; Y Capacitor; Safety-Standard-Approved Disc Capacitor;	C = 10 pF to 0.01 $\mu$ F; (Y2): 300 V (AC), 50 Hz; Temp=- 40 °C to + 125 °C;	TH / Radial 5-10 mm Pitch	

## Inkjet Printer : POWER SUPPLY, Feedback Loop

### Current Sense Resistor

Product Name	Status	Description	Features	Package	Q-Level
WSL2010		Current Sense Resistor Power Metal Strip Technology	P=0.5W, R=0.001 to 0.5Ω, Tol.= 0.5%, 1%, 5%	SMD Size 2010	
WSL2512		Current Sense Resistor Power Metal Strip Technology	P=1W, R=0.001 to 0.5Ω, Tol.= 0.5%, 1%, 5%	SMD Size 2512	
WSLP1206		High-Power Current Sense Resistor Power Metal Strip Technology	P=1W, R=0.002 to 0.05Ω, Tol.= 1%, 5%	SMD Size 1206	

### Load Switch

Product Name	Status	Description	Features	Package	Q-Level
Si4447DY-T1-E3		P-Channel Load Switching MOSFET	40V/4.5A, Rdson=0.045ohm, Qg = 9 nC	SMD SO-8	
Si6459BDQ-T1-E3		P-Channel Load Switching MOSFET	60V/2.7A, Rdson=0.092ohm, Qg = 14.5 nC	SMD TSSOP-8	
Si7309DN-T1-E3		P-Channel Load Switching MOSFET	60V/8A, Rdson=0.092ohm, Qg = 14.5 nC	SMD PPAK 1212-8	
SUD19P06-60-E3		P-Channel Load Switching MOSFET	60V/19A, Rdson=0.048ohm. Qg = 26 nC	SMD TO-252	

### Multilayer Ceramic Chip Capacitors

Product Name	Status	Description	Features	Package	Q-Level
K10		Multilayer Ceramic K10 Capacitors Dipped; Radial;	COG(NPO)10-1000pF;50/100V X7R = 100pF-0.1μF;50/100V Y5V = 1 pF-0.1 μF; 50 V	TH / Radial L2, H5, K2, K5	

### Optocoupler

Product Name	Status	Description	Features	Package	Q-Level
SFH617A		Optocoupler; Phototransistor Output; High Reliability;	VISO = 5300 VRMS; Tamb: -55 to +110 °C; CTR: 40 to 320%	TH / DIP DIP4	
SFH690CT		Optocoupler; Phototransistor Output;	VISO = 3750 VRMS; Tamb: -55 to +100 °C; CTR: 50 to 400%	SMD SOP-4	CSA 93751 UL1577 BSI
TCET1104		Optocoupler; Phototransistor Output; High-Temperature-Capable;	VISO = 5000 VRMS; Tamb: -40 to +100 °C; CTR: 50 to 600%	TH / DIP DIP4	
TCET1114		Optocoupler; Phototransistor Output; High-Temperature-Capable;	VISO = 5000 VRMS; Tamb: -40 to +100 °C; CTR: 50 to 600%	TH / DIP DIP4	

### Switch Diode

Product Name	Status	Description	Features	Package	Q-Level
1N4007		General Purpose Plastic Rectifier	IF(AV):1.0 A; Vrrm = 50V-1000V; IFSM = 30 A; VF = 1.1 V;	TH / Axial DO-204AL (DO-41)	
1N4148		Small-Signal Fast-Switching Diodes	VRRM: = 100 V;VR: = 75 V; IFSM = 2 A; IF = 300 mA; IFAV = 150mA;Ptot =500mW;	TH / Axial DO-35 Glass Case	

### Zener Diode

Product Name	Status	Description	Features	Package	Q-Level
BZX384		Small-Signal Zener Diodes	Vz = 2.4 V to 75 V;	SMD	

Product Name	Status	Description	Features	Package	Q-Level
			Ptot = 200 mW; Tj max = 150 °C;	SOD323 Plastic Case	
TLZ		Small-Signal Zener Diodes	Vz: = 2.4 V to 56 V Ptot = 500 mW; Tj max = 175 °C	SMD SOD80 MiniMELF	
TZX		Small-Signal Zener Diodes	Vz: = 2.4 V to 36 V Ptot = 500 mW; Tj max = 175 °C	TH / Axial DO-35 Glass Case	

## Inkjet Printer : POWER SUPPLY, Input Rectifier

### Bridge Rectifier

Product Name	Status	Description	Features	Package	Q-Level
2KBP06M		Single-Phase Bridge Rectifiers; Glass Passivated; Tjmax = 165 °C;	IF(AV): = 2 A; Vrrm = 50 V-1000 V; IFSM = 60 A;Vf = 1.1 V;	TH / SIP KBPM	
3KBP06M		Single-Phase Bridge Rectifiers; Glass Passivated;	IF(av) = 3 A; Vf = 1.05V; Vrrm = 50V-800V;Ifsm=80A;	TH /SIP KBPM	
DF06MA		Single-Phase Bridge Rectifiers; Miniature; Glass Passivated;	IF(av) = 1 A; Vf = 1.1 V; Vrrm=50V-1000V;Ifsm=30A Tj max = 150°C;	TH / DIP DFM	
GBL06		Single-Phase Bridge Rectifiers; Glass Passivated;	IF(av) = 4 A; Vf = 1 V; Vrrm=50V-1000V;Ifsm=150A Tjmax = 150 °C;	TH / SIP GBL	
GBLA06		Single-Phase Bridge Rectifiers; Glass Passivated;	IF(av) = 4 A; Vf = 1 V; Vrrm=50V-1000V;Ifsm=120A Tjmax=150 °C;	TH / SIP GBL	
GBU6J		Single-Phase Bridge Rectifiers; Glass Passivated;	IF(av) = 6 A; V f= 1 V; Vrrm=50V-1000V;Ifsm=175A Tjmax = 150 °C;	TH / SIP GBU	
GBU8J		Single-Phase Bridge Rectifiers; Glass Passivated;	IF(av) = 8 A; Vf = 1 V; Vrrm=50V-1000V;Ifsm=200A Tjmax = 150 °C;	TH / SIP GBU	

## Inkjet Printer : POWER SUPPLY, Output Filter

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### Aluminum Capacitor

Product Name	Status	Description	Features	Package	Q-Level
037RSM		Aluminum Capacitors; Radial; Standard Miniature;	0.47-10,000 $\mu$ F; 6.3-100 V; Temp. Range = -40-85°C; Life at 85 °C = 2500 h	TH / Radial 5x11 to 16x31mm	
136RVI		Aluminum Capacitors; Radial; Very Low Impedance;	22-10,000 $\mu$ F; Vr=10-100V; Temp. Range= -55 -+105°C; Life@105 °C=4000h-10,000h	TH / Radial 10x12 to 18x35mm	

### Multilayer Ceramic Chip Capacitors

Product Name	Status	Description	Features	Package	Q-Level
K10		Multilayer Ceramic K10 Capacitors Dipped; Radial;	COG(NPO)10-1000pF;50/100V X7R=100pF-0.1 $\mu$ F;50/100V Y5V = 1 pF-0.1 $\mu$ F; 50 V	TH / Radial L2, H5, K2, K5	

# Inkjet Printer : POWER SUPPLY, Output Rectifier

## Low-Voltage MOSFETs

Product Name	Status	Description	Features	Package	Q-Level
SUP40N10-30		N-Channel 100-V (D-S) 175 °C MOSFET	Vdss = 100 V; ID=40A; rDS(on)=0.030Ω Qg = 35nC;	TH / Radial TO-220AB	
SUP90N10-8m8P	NEW	N-Channel 100-V (D-S) 175 °C MOSFET	Vdss = 100 V; ID=90A; rDS(on)=0.008Ω	TH / Radial TO-220AB	

## Schottky

Product Name	Status	Description	Features	Package	Q-Level
V20100C		Trench MOS Barrier Schottky Rectifier; Dual; High Voltage	IF(AV)=2 x 10A; VF=0.58V; Vrrm = 100 V; Tj max = 150 °C;	SMD TO-263AB D2PAK	
V20100C		Trench MOS Barrier Schottky Rectifier; Dual; High Voltage	IF(AV)=2 x 10A; VF=0.58V; Vrrm = 100 V; Tj max = 150 °C;	TH / Radial TO-220AB; TO-262AA	
V20100SG		Trench MOS Barrier Schottky Rectifier; High Voltage	IF(AV)=20 A; VF=0.75V; Vrrm = 100 V; Tj max = 150 °C;	TH / Radial TO-220AB; TO-262AA	
V20120C	NEW	Trench MOS Barrier Schottky Rectifier; Dual; High Voltage	IF(AV)=2 x 10A; VF=0.61V; Vrrm = 120 V; Tj max = 150 °C;	TH / Radial TO-220AB	
V20120SG		Trench MOS Barrier Schottky Rectifier; High Voltage	IF(AV)=20 A; VF=0.77V; Vrrm = 120 V; Tj max = 150 °C;	TH / Radial TO-220AB; ITO-220AB	
V30100C		Trench MOS Barrier Schottky Rectifier; Dual; High Voltage	IF(AV)=2 x 15A; VF=0.627V; Vrrm = 100 V; Tj max = 150 °C;	TH / Radial TO-220AB	
V30100SG		Trench MOS Barrier Schottky Rectifier; High Voltage	IF(AV)=30 A; VF=0.757V; Vrrm = 100 V; Tj max = 150 °C;	SMD TO-263AB D2PAK	
V30100SG		Trench MOS Barrier Schottky Rectifier; High Voltage	IF(AV)=30 A; VF=0.757V; Vrrm = 100 V; Tj max = 150 °C;	TH / Radial (I)TO-220AB TO-262AA	
V30120C	NEW	Trench MOS Barrier Schottky Rectifier; High Voltage	IF(AV)=30 A; VF=0.7V; Vrrm = 120 V; Tj max = 150 °C;	TH / Radial TO-220AB; TO-262AA	
V30120SG	NEW	Trench MOS Barrier Schottky Rectifier; High Voltage	IF(AV)=30 A; VF=0.712V; Vrrm = 120 V; Tj max = 150 °C;	SMD TO-263AB D2PAK	
V30120SG	NEW	Trench MOS Barrier Schottky Rectifier; High Voltage	IF(AV)=30 A; VF=0.712V; Vrrm = 120 V; Tj max = 150 °C;	TH / Radial (I)TO-220AB TO-262AA	
V40100C	NEW	Trench MOS Barrier Schottky Rectifier; Dual; High Voltage	IF(AV)=2 x 205A; VF=0.61V; Vrrm = 100 V; Tj max = 150 °C;	TH / Radial TO-220AB	
V40100G		Trench MOS Barrier Schottky Rectifier; Dual High Voltage	IF(AV)=2 x 20A; VF=0.67V; Vrrm = 100 V; Tj max = 150 °C;	SMD TO-263AB D2PAK	
V40100G		Trench MOS Barrier Schottky Rectifier; Dual High Voltage	IF(AV)=2 x 20A; VF=0.67V; Vrrm = 100 V; Tj max = 150 °C;	TH / Radial TO-220AB; TO-262AA	
V40120C	NEW	Trench MOS Barrier Schottky Rectifier; Dual; High Voltage	IF(AV)=2 x 20A; VF=0.630V; Vrrm = 120 V; Tj max = 150 °C;	SMD TO-263AB D2PAK	
V40120C	NEW	Trench MOS Barrier Schottky Rectifier; Dual; High Voltage	IF(AV)=2 x 20A; VF=0.630V; Vrrm = 120 V; Tj max = 150 °C;	TH / Radial TO-220AB; TO-262AA	

## Inkjet Printer : POWER SUPPLY, PFC

### 600-V Ultrafast Diode

Product Name	Status	Description	Features	Package	Q-Level
MUR460		Ultrafast Plastic Rectifier	IF(av) = 4 A; Vf = 1.05V; Vrrm=400V to 600V; Trr=50ns; Tj max.=175 °C;	TH / Axial DO-201AD	

### General Rectifier

Product Name	Status	Description	Features	Package	Q-Level
1N5406		General-purpose Plastic Rectifier; Tj max = 150 °C;	IF(AV) = 3A; Vrrm = 50V-1000V; IFSM = 200 A;Vf = 1.2 V;	TH / Axial DO-201AD	

### High-Voltage MOSFETs

Product Name	Status	Description	Features	Package	Q-Level
IRFB17N60KPBF	NEW	SMPS MOSFET; HEXFET® Power MOSFET; Low Qg Results in Simple Drive Requirem.	Vdss = 600 V; ID=17A; rDS(on)=0.35Ω; Qg = 99 nC;	TH / Radial TO-220AB	

### High-Voltage Resistor

Product Name	Status	Description	Features	Package	Q-Level
VR25		High-Ohmic/High-Voltage Resistors	High Pulse Loading Cap.; Small Size	TH / Axial 0207 A5;A2;A1;R5;N4	

### Tandem Rectifier

Product Name	Status	Description	Features	Package	Q-Level
8S2TH06FP	NEW	Hyperfast Tandem Rectifier 8-Amp			

## Inkjet Printer : POWER SUPPLY, PWM

### High-Voltage MOSFETs

Product Name	Status	Description	Features	Package	Q-Level
IRFBE30PBF		SMPS MOSFET; HEXFET® Power MOSFET; Fast Switching; Low $r_{DS(on)}$ ; Cost Eff. Low Thermal Resistance;	$V_{dss} = 900\text{ V}$ ; $I_D = 3.6\text{ A}$ ; $r_{DS(on)} = 3.7\Omega$ ; $Q_g = 78\text{ nC}$ ;	TH / Radial TO-220AB	
IRFBF30PBF		SMPS MOSFET; HEXFET® Power MOSFET; Fast Switching; Low $r_{DS(on)}$ ; Cost Eff. Low Thermal Resistance;	$V_{dss} = 800\text{ V}$ ; $I_D = 4.1\text{ A}$ ; $r_{DS(on)} = 35\Omega$ ; $Q_g = 78\text{ nC}$ ;	TH / Radial TO-220AB	

### Low- and High-Side Switches

Product Name	Status	Description	Features	Package	Q-Level
Si5902BDC-T1-E3		Dual N-Channel Switching MOSFET	$30\text{ V}/4\text{ A}$ , $R_{dson} = 0.053\text{ ohm}$ , $Q_g = 4.5\text{ nC}$	SMD 1206-8 ChipFET	
Si5904DC-T1-E3		Dual N-Channel Switching MOSFET	$20\text{ V}/4\text{ A}$ , $R_{dson} = 0.065\text{ ohm}$ , $Q_g = 4\text{ nC}$	SMD 1206-8 ChipFET	

## Inkjet Printer : POWER SUPPLY, Snubber

### Freewheeling Diode

Product Name	Status	Description	Features	Package	Q-Level
6CWQ06FNTRPBF		High-Voltage Schottky Rectifier Dual Common Cathode	60 V/7 A, Vf = 0.76V@IF = 6A@25°C	SMD TO-252	
MBRB10H100CTE3		High-Voltage Schottky Rectifier Dual Common Cathode	100 V/10 A, Vf = 0.76V@IF = 5A@25°C	SMD TO-263AB	

### Switch Diode

Product Name	Status	Description	Features	Package	Q-Level
1N4007		General Purpose Plastic Rectifier	IF(AV):1.0 A; Vrrm = 50V-1000V; IFSM = 30 A; VF = 1.1 V;	TH / Axial DO-204AL (DO-41)	
1N5408		General-purpose Plastic Rectifier; Tj max = 150 °C;	IF(AV): = 3 A; Vrrm = 50V-1000V; IFSM = 200 A;Vf = 1.2 V;	TH / Axial DO-201AD	
BYV26EGP		Glass Passivated Ultrafast Rectifier	IF(AV):1.0 A; VF:1.3 V; Vrrm=800V/1000V;Ifsm=30A Trr = 75 nS; Tjmax=175°C;	TH / Axial DO-204AC (DO-15)	
RS1PD		Fast-Switching Rectifier High Current Density; SMD; Glass Passivated;	IF(AV):1.0 A; VF:1.3 V; Vrrm=100V-600V; IFSM:30A; Trr = 150~250 ns;	SMD DO-220AA (SMP)	

### TVS

Product Name	Status	Description	Features	Package	Q-Level
1.5KE		TRANSZORB® Transient Voltage Suppressors Tj max = 175 °C	V(BR) Unidirec.:6.8-540V V(BR) Bidirec.:6.8-440V; PPPM = 1500 W; PD = 6.5 W	TH / Axial 1.5KE	
P4KE		TRANSZORB® Transient Voltage Suppressors Tj max = 175 °C;	V(BR)Unidirec.:6.8V-540V; V(BR) Bidirec.:6.8V-440V PPPM = 400 W; PD = 1 W;	TH / Axial DO-204AL (DO-41)	
P6KE		TRANSZORB® Transient Voltage Suppressors Tj max = 175 °C;	V(BR)Unidirec.:6.8V-540V; V(BR) Bidirec.:6.8V-440V PPPM = 600 W; PD = 5 W;	TH / Axial DO-204AC (DO-15)	

