

Good-Ark Semiconductor is a leading global discrete semiconductor manufacturer that offers a wide variety of surface mount, through-hole and wafer devices with superior quality and reliability at competitive costs. Good-Ark manufactures innovative discrete semiconductors with increased power density and energy efficiency in pursuit of environmental sustainability and cost effectiveness.

DISCRETE  
SEMICONDUCTORS  
EMPOWERING  
YOUR DESIGN

### Broad Product Portfolio

Good-Ark Semiconductor provides the following product families in various package types from through-hole to surface mount devices as well as wafer/bare die for hybrid applications. Good-Ark has both the fl and R&D capability of providing custom devices to meet customers' specific requirements.

- × Diodes
- × Rectifiers
- × Bridge Rectifiers
- × Protection Devices (TVS, Chip Fuses & Thermistors)
- × Thyristors (SCRs & Triacs)
- × Transistors
- × Small Signal MOSFETS
- × Power MOSFETS (supported by Trench Technology)
- × MEMS (Accelerometers & Magnetometers)

### Continuous Improvement and Dedication to Perfect Quality, Environmental Commitment and Employee Well-being

Good-Ark strives to conduct its operation based on the industry's highest quality and environment standards. The company has been certified as follows:

- × Quality: ISO9001:2008
- × Automotive: ISO/TS16949
- × Environment: ISO14001 & QC080000
- × Health & Safety: OHSAS18001
- × Information Security: ISO/EC2700

### World Class Manufacturing Facilities with Scalability and a Cost Effective Industry Supply Chain

From the front-end wafer development to back-end packaging, Good-Ark has a well-established supply chain to maximize efficiency.

- × Over 2 million square feet of world class manufacturing facilities
- × Class 10,000 Clean Room
- × Assembly and testing capacity for
  - Diodes: 701KK/month
  - SMA/SMB/SMC: 182KK/month
  - QFN/DFN: 330KK/month

### Global Presence with Local Customer Support

Good-Ark provides global sales networks and technical support to serve customers locally.

- × Direct sales force in North America and Asia to offer real time support from the manufacturer
- × Extensive authorized distributors and manufacturer rep networks
- × Free samples available for immediate testing
- × Engineering resources for all technical support

For more information or to order FREE samples, please call 631-319-1858 or email [inquiry@goodarksemi.com](mailto:inquiry@goodarksemi.com)



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# PRODUCT OVERVIEW

## DIODES

### Switching

30V thru 400V  
75mA thru 300mA

### Schottky

20V thru 100V  
30mA thru 1.0A

### Zener

150mW thru 3000mW  
0.8V thru 200V

### Temperature Compensated Zener

5.1V thru 39V

### Current Limiting

18mA thru 41.5mA

## RECTIFIERS

### General Purpose

50V thru 5000V  
1.0A thru 70A

### Fast Recovery

50V thru 1000V  
1.0A thru 6.0A

### Ultra-Fast Recovery

50V thru 1000V  
1.0A thru 6.0A

### Super-Fast Recovery

50V thru 1000V  
1.0A thru 30A

### Schottky

20V thru 200V  
1.0A thru 70A

### Silicon Carbide Schottky

600V thru 1700V  
4A thru 40A

## BRIDGE RECTIFIERS

### General Purpose

20V thru 1000V  
0.5A thru 35A

### Fast Recovery

20V thru 1000V  
0.5A thru 35A

### Schottky

20V thru 200V  
1.0A thru 5.0A

## PROTECTION DEVICES

### ESD TVS

Low Capacitance  
Extremely Low Capacitance

### Polymer and Ceramic ESD TVS

Ultra Low Capacitance

### TVS

150W thru 5000W  
3.3V thru 550V

### Chip Fuses

Fast Acting Chip Fuse – 200mA thru 10A  
Slow Blow Chip Fuse – 1.0A thru 7.0A  
High Inrush Chip Fuse – 1.0A thru 7.0A

### Thermistors

PTC & NTC

## TRANSISTORS

### General Purpose

6.0V thru 400V  
45mA thru 3.0A

### Saturated Switches

15V thru 60V  
200mA thru 3.0A

### Bias Resistors (Digital)

50V thru 100V  
100mA thru 1.0A

## MOSFETS

### Small Signal/Power MOSFETS

#### N-Channel/P-Channel

$V_{DS}=8V$  thru 900V  
 $I_D=100mA$  thru 245A

#### Combinations

Dual MOSFETS  
MOSFET + Schottky

## THYRISTORS

### SCRs

600V thru 2000V  
800mA thru 250A

### Triacs

600V thru 1600V  
600mA thru 110A

## MEMS

### Three-Axis Accelerometers

LGA-10 pins, 12 pins, 16 pins  
 $\pm 2g, \pm 4g, \pm 8g, \pm 16g$ , 14-bit

### Three-Axis Magnetometers

BGA-14 pins  
 $\pm 48g$ , 16-bit

### Six-Axis Digital Compass

## SMD PACKAGE TYPES (LxWxH) All dimensions are maximum value in mm

DFN1006 1.00x0.60x0.40	DFN 1010-5 1.00x1.00x0.50	DFN 1608-02L 1.60x0.80x0.60	DFN-3 1.60x1.60x0.60	BGA-14 1.60x1.60x0.81	DFN 1713-8L 1.70x1.35x0.60
DFN2x2-6L 2.00x2.00x0.60	LGA-12 2.00x2.00x1.10	DFN 2510-10L 2.50x1.00x0.60	DFN2x5-6L 2.00x5.00x0.80	DFN3x2-8L 3.00x2.00x0.80	DFN3x3-8L 3.00x3.00x0.80
LGA-10 3.00x3.00x0.90	LGA-16 3.00x3.00x0.90	DFN5x6-8L 5.00x6.00x0.80	QFN5x6 6.10x5.20x1.00	DFN 6080-8L 6.00x8.00x0.80	
SOD-923 1.05x0.65x0.41	SOD-723 1.45x0.65x0.55	SOD-523 1.70x0.90x0.70	eSGP (SOD-323FL) 2.60x1.50x1.00	SOD-323 2.70x1.35x1.00	
SOD-123 3.55x1.7x1.25	eSGA (SOD-123FL) 3.90x2.00x1.08	iSGA 3.70x1.90x1.00	eSGB (SMAF) 5.20x2.80x1.08	DO-214AC (SMA) 5.20x2.65x2.25	
DO-214AA (SMB) 5.46x3.73x2.61	eSGC (TO-277) 6.60x4.30x1.20	DO-214AB (SMC) 8.13x6.22x2.62	eSGD (SMCF) 7.98x5.9x1.45		
SOT-923 1.05x0.65x0.4	SOT-723 1.25x1.25x0.55	SOT-563 1.7x1.7x0.60	SOT-523 1.70x1.70x0.80	SOT-553 1.70x1.70x0.60	SOT-353 2.20x2.10x1.10
SOT-363 2.20x2.20x1.10	SOT-323 (SC-70) 2.20x2.45x1.10	SOT-23 3.00x2.64x1.10	SOT-23-6 3.00x2.64x1.10	SOT-89 4.70x4.50x1.70	SOT-223 6.70x7.30x1.75
TSOP-6 3.10x3.00x1.10	SOP-8 5.00x6.00x1.65	TSSOP-8 6.40x3.10x1.20	GEMPAK 5060 6.10x5.00x1.10	TO-252 (D-PAK) 10.40x6.70x2.40	TO-263 (D <sup>2</sup> PAK) 15.60x10.20x4.80
MBS 4.95x6.90x2.90	SOPA-4 5.30x6.40x1.50	LPMB 6.90x4.90x1.35	DFL 8.30x10.10x1.75	DFS 8.51x10.30x3.30	

## THROUGH-HOLE PACKAGE TYPES

DO-34 Glass	TO-92
DO-204AH (DO-35 Glass)	TO-251 (iPAK)
DO-204AL (DO-41 Glass)	TO-262
DO-204AL (DO-41)	TO-220AB
DO-204AC (DO-15)	ITO-220AB
A-405	TO-220AC
R-1	ITO-220AC
R-3	TO-247
DO-201 AD	MBM
P600	DF
WOG	GBL
KBL	KBPC-W
KBJL-C	KBPC
GBJL	

## WAFER/BARE DIE

Good-Ark Semiconductor offers products in wafer/bare die form to fulfill customers' demand for hybrid, chip on board and wearable applications. Full unsawn wafers are available 100% tested and probed with rejects inked. Bare die is available in waffle packs or sawn on frame. Good-Ark Semiconductor offers customers the flexibility of special wafer diffusions, metallization, selected parts and custom devices.

