

SMC

DIODE SOLUTIONS
17 YEARS OF EXCELLENCE



SMC QUALITY STANDARDS

- ⊗ ISO 9001:2008 Certified
- ⊗ ISO 14001:2004 Certified
- ⊗ TS16949 Certified
- ⊗ Traceability per MIL standard
- ⊗ Certification of Compliance
- ⊗ Additional screening tests upon request
- ⊗ Reliability testing
- ⊗ Reliability and Fit data are available



SCREENING OPTIONS

Screen or Test Description	Prefix	Commercial flow	U	UA	UX
100% Wafer Probe		R	R	R	R
3-Sigma lot norm determination			R	R	R
Surge Test		1X	1X	1X	1X
100% DC Electrical Test Go-No-Go			R	R	R
Temperature Cycling			10 Cycles	10 Cycles	20 Cycles
Post TC Surge Test			1X	3X	10X
100% Thermal Impedance			R	R	R
100% DC Electrical Test				go-no-go	R
HTRB				24 hrs	96 hrs
100% DC Electrical Test		go-no-go	go-no-go	go-no-go	R
Delta Calculations					R
PDA Calculations					R
100% Visual Inspection		R	R	R	R
Certification of Conformance		R	R	R	R
Group A Inspection					O
Group B Inspection					O
Group C Inspection					O

COMPANY PROFILE:



SMC Diode Solutions, a division of Sangdest Micro-electronics (Nanjing) Co., Ltd (SMC), was founded in 1997 to support high reliability customers. Headquartered in Plainview, New York with a fabrication facility in Nanjing, China, SMC designs and manufactures their own products at the highest quality standards. SMC provides industry leading USA design proficiency in conjunction with high-quality low-cost Asia manufacturing. Our products excel where high reliability is demanded. We are TS16949, ISO14001 and ISO9001 certified. Our application segments include consumer electronic, renewable energy, aerospace, and medical technologies. SMC's products are pervasive in the designs of leading manufacturers of LCD displays, communications equipment, solar panels, wind turbines, aircraft and power supplies.

Our products are widely accepted in both domestic and international markets, as demonstrated by our solid annual sales growth. We exceed rigorous qualification requirements mandated by our customers who are known worldwide for both their superior products and for their exceptionally demanding supplier qualification teams.

SMC is committed to conducting its operations in an ethical and socially responsible manner. Our firm actively works to reduce waste while recycling to preserve resources and protect the environment.

Our staff is dedicated to consistently meeting our customer's expectations. We offer prompt technical and sales support while delivering the highest quality products with on-time delivery. Please challenge our team to meet your firm's requirements.

COMPANY CONTACT INFORMATION:

HEADQUARTERS & NORTH AMERICA SALES OFFICE



101 Sunnyside Blvd,
Plainview, NY 11803, USA
sales-usa@smc-diodes.com
Phone: +1 631 965 0869
Fax : +1 720 294 6451

KOREA SALES OFFICE



513 Pan-Gyo Woo-Lim W-City
Sam Pyeong Dong 618, Sung-Nam Si,
Kyung-gi do, Korea
sales-korea@smc-diodes.com
Phone: +82 031 628 7840
Fax : +82 031 628 7841

FACTORY & CHINA SALES OFFICE

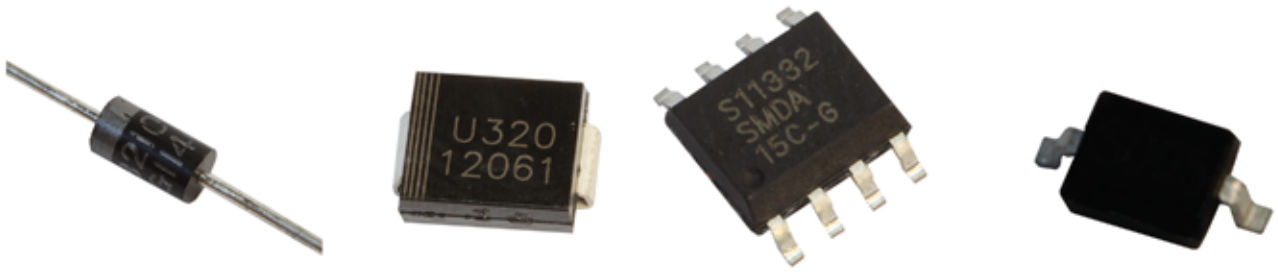


19 WeiQi Street,
Airport Development Zone
JianNing District, Nanjing, 211113, China
sales@smc-diodes.com
Phone: +86 258 712 3907
Fax : +86 258 712 3900

EUROPEAN SALES OFFICE



Obere Tiefenbachstr. 8,
83734 Hausham, Germany
sales-europe@smc-diodes.com
Phone: +49 802 692 06021
Fax : +49 322 110 8990470



ULTRA FAST RECOVERY RECTIFIERS

Io: 1A - 60 A
PIV: 50V - 1200V

Reverse recovery time: < 100 ns

Good switching characteristics

Very short reverse recovery time

Application:
 switching power supplies, PWM, UPS, AC motor frequency control and high-frequency heating devices as a high-frequency and high-current freewheeling diode

Packages:
 DO-15, DO-201AD, DO-41, DPAK, D2PAK, ITO-220AC; SMA, SMB, SMC TO-220AB, TO-220AC, TO-247AC, TO-247AD and TO-3P

FAST RECOVERY RECTIFIERS

Io: 0.2A - 16A
PIV: 50V - 2000V

Reverse recovery time: < 500 ns

Reduced power dissipation

Minimum reverse recovery characteristics

Application:
 switching mode power supplies, electronic ballast, small household appliances, inverters, converters, ultrasonic systems, choppers, low RF interference and free wheeling diodes.

Packages:
 DO-15, DO-27, DO-41, R-1, R-6, SMA, SMB, SMC, TO-220AB and TO-220AC

REGULAR RECTIFIERS

Io: 1A - 6A
PIV: 50V - 1300V

Reverse recovery time: > 500 ns

Application:
 power supplies, control boards, LED lighting and communications equipment

Packages:
 A-405, DO-15, DO-27, DO-41, R-1, R-6, SMA, SMB and SMC,

WWW.SMC-DIODES.COM





TRADITIONAL SCHOTTKY RECTIFIERS

Io: 0.01A - 120A
PIV: 10V - 220V

Application:
 switching power supplies, inverters and drive circuits as a high-frequency, low-voltage, high current rectifier diode, freewheeling diode and protection diode

Metal semiconductor junction component

Suitable for low-voltage, high-current output occasions as high-frequency rectifiers

Packages:
 DO-15, DO-201AD, DO-41, DPAK, D2PAK, ITO-220AB, ITO220AC, R-6, SMA, SMB, SMC, SOD-123, SOD-323, SOD-523, SOT-23, SOT-223, SOT-323, TO-220AB, To-220AC, TO-247AD, TO-262 and TO-227A

ULTRA LOW VF SCHOTTKY RECTIFIERS

Io: 5A - 40A
PIV: 45V - 200V

Vf 15% - 20% lower than the traditional Schottky rectifiers

Superior efficiency and thermal performance

Most suitable if system's operation temperature is higher, and a higher efficiency and reliability is required

Packages:
 DPAK, D2PAK, ITO-220AB, ITO220AC, R-6, TO-220AB, To-220AC and TO-227A

SCHOTTKY MODULE

Io: 30A - 440A
PIV: 15V - 200V

Application:
 high current switching power supplies, plating power supplies, UPS systems, converters, free-wheeling diodes, welding and reverse battery protection

Packages:
 PRM1-1, PRM2, PRM2-5L, PRM2-SM, PRM3, PRM3-SL, PRM3-SM, PRM4, PRM4-ISO, SPD-1, SPD-1A, SPD-2, SPD-2A, SPD3-SPD3A, TO-249 and TO-249AA

WWW.SMC-DIODES.COM





TRANSIENT VOLTAGE SUPPRESSORS

Power: 30W -30,000W

Higher current conducting capacity compared to Zener diodes

Application:

In ESD, EFT, lightning and other applications as overvoltage protection diodes

Packages:

DO-15, DO-201AE, DO-41, P-600, SMA, SMB, SMC, SOD-323 and SPD-4

TVS ARRAY

Power: 300W -500W

Multiple TVS diodes in one

Multi-line protection in the circuit

Application:

multiple signal line interface overvoltage protection, such as USB, RS232 LCD bus etc.

You can:

- save board area
- optimize circuit layout
- improve protective effect

Packages:

SO-8, SO-14, SO-16, SOD-323 and SOT-23

ZENER DIODE

Power: 56 mW -1000 mW

High-resistance before critical breakdown

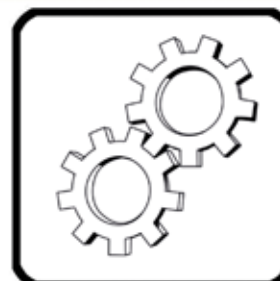
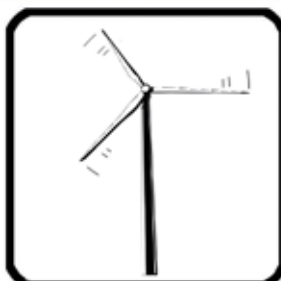
Surface contact silicon semiconductor diode

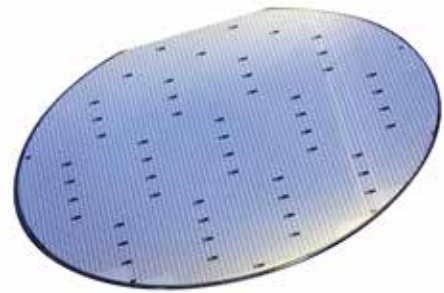
Used to keep the voltage stable stable in the circuit

Packages:

DL-35, DL-41, DO-35, DO-214AC, DO-41, SOD-123, SOD-523 and SOT-23

WWW.SMC-DIODES.COM





SMALL SIGNAL SWITCHING DIODES

Io: 150 mA - 250 mA
PIV: 35V - 250V

Operating current several hundred milliamps to several amp

Fast switching speed, a low forward voltage drop, and a high efficiency

Application:
logic operation circuits that have small current, such as switch diode, limiter diode, clamp diode or detector diode

Packages:
DL-35, DO35, SOD 123, SOD-323, SOT-23 and SOT-323

CHIPS

Silicon chips for all the devices we make are also available for purchase

Format: uncut wafer, cut wafer on tap, in waffle pack or in bottle

Standard metallization

100% tested for room temperature electrical parameters
Suitable for modules and hybrids

Bottom:

- solderable (Ag)

Top:

- either solderable (Ag)
- or wire bondable (Ag)

Silicon chip with Mo disc brazed on top or disc brazed on both sides are also available

OTHER SERVICES

Build to Source Controlled Drawing

Special reliability testing

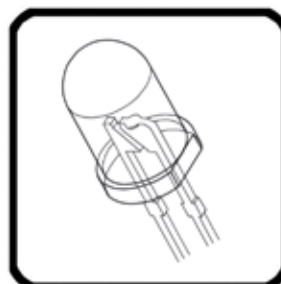
Special Testing and Screening per customer Request

Reliability and fit data available

Special Package Design

Individual project monitoring

WWW.SMC-DIODES.COM





**HEADQUARTERS & NORTH
AMERICA SALES OFFICE**

**101 Sunnyside Blvd,
Plainview, NY 11803, USA
sales@smc-diodes.com
Fax: +1 720 294 6451**

WWW.SMC-DIODES.COM

SALES REPRESENTATIVE