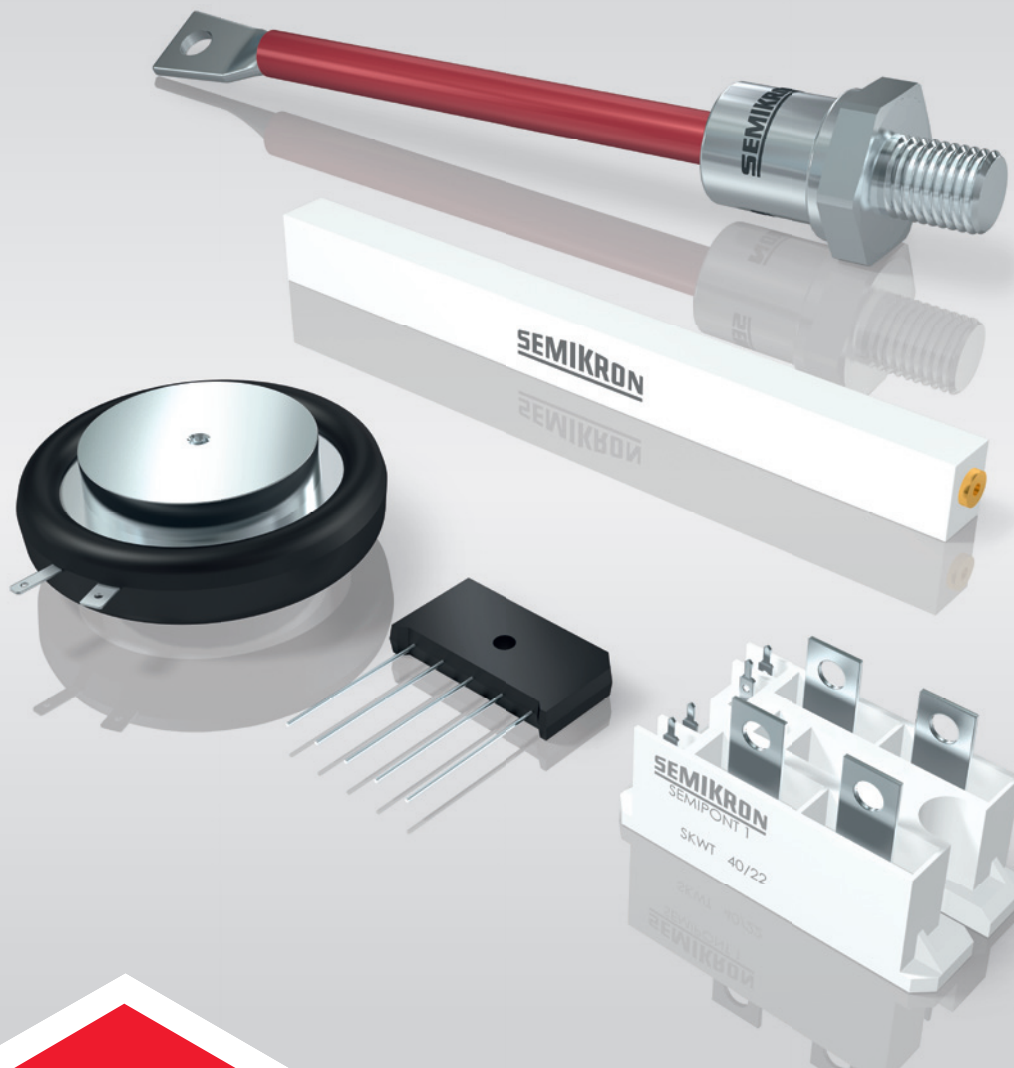


Robust and Easy to Use



Discrete Diodes
Discrete Thyristors
Rectifier Bridges



Motor
Drives



Solar
Energy

AC | DC

Power
Supplies



Discrete Diodes and Thyristors



Discrete diodes and thyristors for low to high power applications. A wide range of case designs are available in voltage classes from 200V to 5000V and current ratings from 1A to 7500A.

Discrete benefits

Discrete components are used in a wide variety of applications. Particular benefits are achieved whenever high current, uncommon topologies, natural cooling or resistance to harsh conditions are required.

The SEMIKRON portfolio includes axial leaded diodes up to 6A, diodes and thyristors in screw fit (stud) and capsule housings which range from 7500A and 5000V for diodes, to 1200A and 1800V for thyristors.

- Easy assembly
- Hermetic sealing
- Rugged construction

Avalanche diodes

- No overvoltage suppressors are needed
- Insensitive to short term reverse overloads
- High blocking voltages possible without static or dynamic voltage sharing circuits

Discrete applications

Key uses include welding machines, battery chargers, electroplating, soft starters, DC motor control, AC controllers (e.g. for temperature control), alternators and several others. With sealed cases, discrete devices are convenient for both natural convection and forced cooling allowing wider application fields. With over 50 years of field experience and millions of units produced every year, the SEMIKRON portfolio enables competitive, flexible and highly reliable options.

Discrete product range

Axial diodes	1A to 6A	100V to 2000V
Stud (screw fit) diodes	5A to 400A	200V to 5000V
Capsule (disc) diodes	up to 7500A	100V to 600V
Stud (screw fit) thyristors	10A to 300A	400V to 1800V
Capsule (disc) thyristors	340A to 1200A	400V to 1800V

Discrete diodes



Leaded



Stud (screw fit)



Capsule

Discrete thyristors



Stud (screw fit)



Capsule

Key features

- Recommended for forced air and water cooling
- Compact case with high current capability
- Stud and disc types: forward drop selections available for easy paralleling
- Axial diodes for PCB mounting
- Standard and fast types

Rectifier Bridges

Single phase and 3-phase isolated rectifier bridges for low to medium power applications. Common and special topologies with diodes, thyristors and IGBTs are available with various case and terminal designs. Voltage ranges are from 200V to 2200V and current ranges from 9A to 494A.

Rectifier bridge benefits

When performance, space and fast production are paramount, SEMIKRON rectifier bridges are the solution in many applications.

Single or 3-phase topologies using diodes, thyristors and IGBTs in isolated compact cases can be realised. Whether your preference is connection by solder, solderless through spring or press-fit contacts, mechanically with screws, fast-on or busbars, SEMIKRON has a product.

Rectifier bridge applications

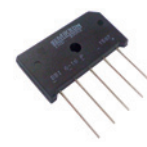
Key applications include battery chargers, motor drive input rectifiers, power supplies, DC motor control, rectifiers with PFC, AC controllers, static switches (SKWT types) for natural convection or forced cooling.

Rectifier bridge product range

- 9A up to 494A, 400V up to 2200V



SKHE 2000/900 - 1,2



DBI 6 P



SKWT 40

New discrete and rectifier bridges

Product	Type	Current I_{FAV} (A) @ T_c	Voltage (V)	
In-Line bridges for PCB mounting	BI 6 P	9 A @ 73°C	200...1800	-
	BI 25 P	25 A @ 26°C	200...1800	
	DBI 6 P	9 A @ 113°C	200...2200	-
	DBI 25 P	27 A @ 32°C	200...2200	-
High voltage diodes	SKHE 2000/900-1,2	1,5 A @ 45°C	V(BR) = 6000 $V_{VRMS} = 2000$ V	-
	SKHE 3500/2200-2,0	2,5 A @ 45°C	V(BR) = 10000 $V_{VRMS} = 3500$ V	-
Hex base, screw				
New Stud screw diodes	SKN 96 / SKR 96	95 A @ 142°C	400...1200	SW17, M8
	SKN 152 / SKR 152	150 A @ 140°C	400...1200	SW27, 3/8"-27 UNF
	SKN 300 / SKR 300	300 A @ 124°C	400...1600	SW32, M16
	SKN 390 / SKR 390	395 A @ 116°C	400...1600	SW32, M16
Dimensions in mm				
Disc thyristors and diodes	SKN 1503	1550 A @ 80°C	400...1800	Ø56 x Ø32 x H26
	SKN 7500	7500 A @ 85°C	400...600	Ø48 x H05
	SKT 553	550 A @ 85°C	400...1800	Ø41 x Ø25 x H14
	SKT 763	760 A @ 80°C	400...1800	Ø56 x Ø32 x H26
Notes				
Axial leaded diodes	SK 6	6 A @ 50°C	400...1600	-
	SKa 6	6 A @ 50°C	1700...2000	Avalanche
Double anti parallel thyristors	SKWT 40	40 A @ 90°C	1600...2200	Fast-on or eye terminal
	SKWT 80	80 A @ 55°C	1600...2200	Screw terminal



We are close to our customers

www.semikron.com/contact



shop.semikron.com



www.youtube.com/c/semikron



de.linkedin.com/company/semikron

SEMIKRON INTERNATIONAL GmbH

Sigmundstrasse 200
90431 Nuremberg, Germany
Tel: +49 911 6559 6663
Fax: +49 911 6559 262
sales@semikron.com

www.semikron.com
shop.semikron.com

