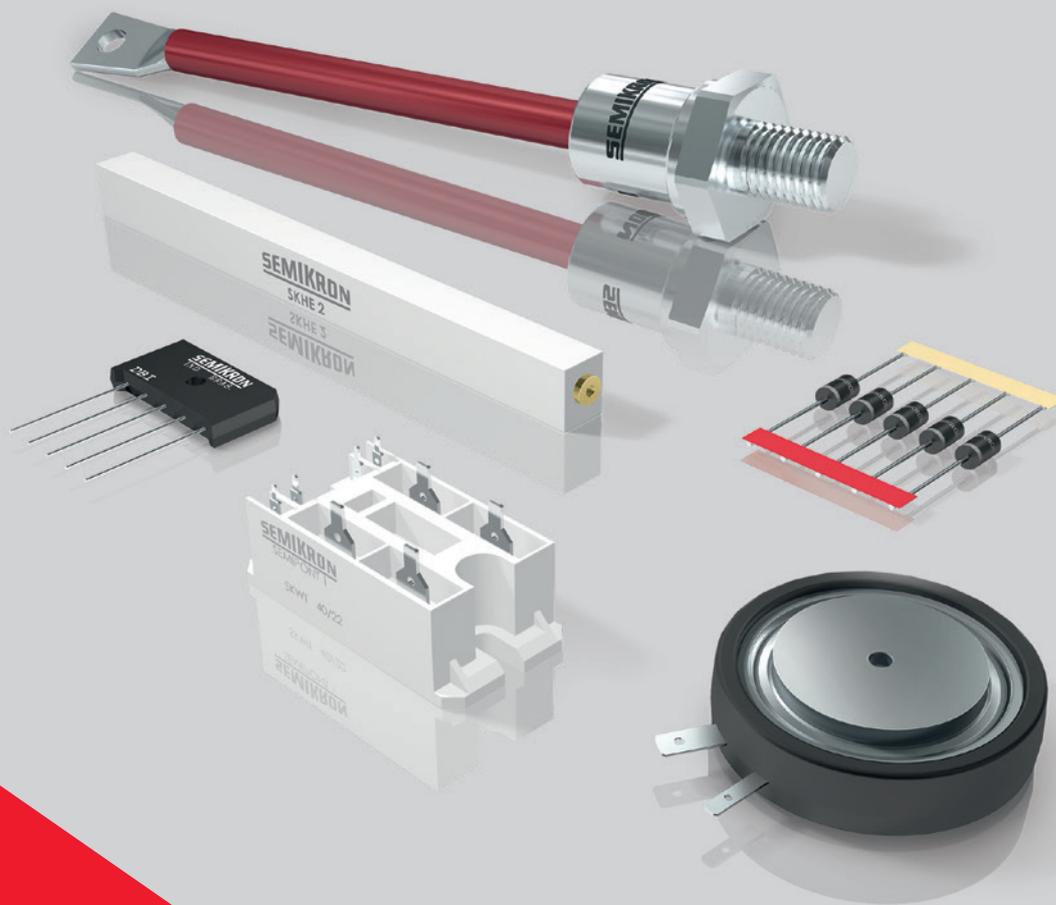


Robust and Easy to Use



Discrete Diodes
Discrete Thyristors
Rectifier Bridges



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 8000V 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 stability in harsh conditions are required.

The SEMIKRON portfolio includes axial leaded diodes up to 6A, diodes and thyristors in screw-fit (stud) and capsule housings for up to 7500A and 8000V and 1200A and 1800V for diodes and thyristors, respectively.

- Easy assembly
- Hermetic sealing
- Rugged construction

Avalanche diodes

- No overvoltage suppressors needed
- Robust in short reverse overload conditions
- 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 many more. With sealed cases, discrete devices are convenient for both natural convection and forced cooling, allowing for a broader range of applications.

With over 50 years of experience in the field and millions of units produced every year, the SEMIKRON portfolio delivers competitive, flexible and highly reliable products and solutions.

Discrete product range

Axial diodes	1A to 6A	100V to 2000V
HV axial screw diodes	up to 2.5A	up to 8000V
Stud (screw-fit) diodes	5A to 600A	200V to 5000V
Capsule (disc) diodes	up to 7500A	100V to 2200V
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

Available in standard and fast versions

Rectifier Bridges

Single-phase and 3-phase isolated rectifier bridges for low to medium power applications. Standard and special topologies featuring diodes, thyristors and IGBTs are available in various case and terminal designs. For voltages ranging from 200V to 2200V and currents ranging 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 featuring diodes, thyristors and IGBTs in isolated compact cases can be achieved. Whether your preference is solder-based connection, solderless connection with spring or press-fit contacts, or mechanical screw connections, fast-on connectors or busbars, SEMIKRON has the right product for you.

Rectifier bridge applications

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

Rectifier bridge product range

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



SKHE 2000/900 - 1,2



DBI 6 P



SKWT 40

New discrete and rectifier bridges

Product	Type	Current I (A) @ Tc / Tamb	Voltage (V)	
In-line bridges for PCB assembly	DBI 6 P	9A @ 113°C	200...2200	-
	DBI 25 P	27A @ 32°C	200...2200	
High-voltage diodes	SKHE 2000/900-1,2	1.5A @ 45°C	V(BR) = 6000 V _{VRMS} = 2000	-
	SKHE 3500/2200-2,0	2.5A @ 45°C	V(BR) = 10000 V _{VRMS} = 3500	-
Quadbridge	KBPC 35/10	35A @ 55°C	400...1000	
New stud screw diodes	SKN 46 / SKR 46	45A @ 125°C	400...1600	Hex base, screw SW17, M8 (1/4-28 UNF 2A)
	SKNa 46 / SKRa 46	45A @ 125°C	1400...2000	SW17, M8 (1/4-28 UNF 2A)
	SKN 86 / SKR 86	85A @ 130°C	800...1600	SW17, M8 (1/4-28 UNF 2A)
	SKNa 86 / SKRa 86	85A @ 130°C	1400...2000	SW17, M8 (1/4-28 UNF 2A)
Disc thyristors and diodes	SKN 503 SG	503A @ 120°C	400...2200	Dimensions in mm Ø42 x Ø25 x H14.5
	SKN 1503 SG	1690A @ 75°C	400...2200	Ø58 x Ø36 x H26.5
	SKN 6000	6000A @ 85°C	200...600	Ø60 x Ø44 x H8
	SKN 7500	7500A @ 85°C	600	Ø49.5 x Ø47.5 x H5.3
	SKT 553 SG	554A @ 85°C	400...1800	Ø42 x Ø25 x H14.5
	SKT 813	855A @ 85°C	400...1800	Ø50 x Ø32 x H14.5
	SKT 883	890A @ 85°C	400...1800	Ø58 x Ø36 x H26.5
Axial leaded diodes	SK 6	6A @ 50°C	400...1600	Notes -
	SKa 6	6A @ 50°C	1700...2000	Avalanche



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