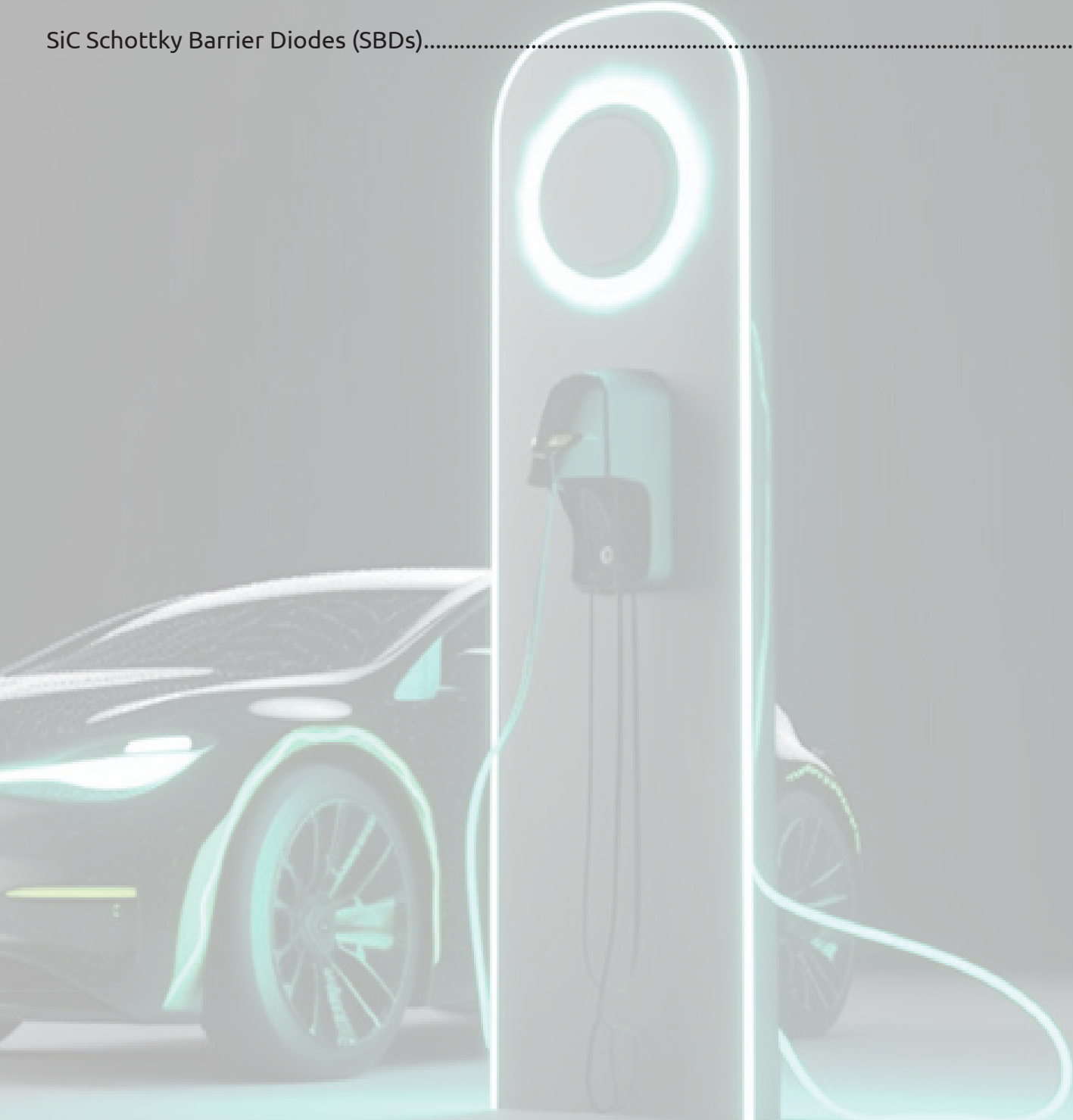


Silicon Carbide (SiC)

MCC’s silicon carbide semiconductors deliver fast switching speed, low forward drop, and temperature stability, enabling a range of high-power and high-voltage applications. Our selection of SiC Schottky barrier diodes and SiC MOSFETs provides ruggedness, reliability, and wider bandgap, making them ideal for renewable energy systems and industrial automation.

SiC MOSFETs.....29

SiC Schottky Barrier Diodes (SBDs).....30



SiC MOSFETs

1200V/1700V N Channel

Part Number	Package	Channel	Power Rating	Drain-Source Voltage	Gate Source Voltage	Drain Current	Static Drain-Source On-Resistance			Gate Threshold Voltage (Min)	Gate Threshold Voltage (Max)	Input Capacitance
			P _D (W)	V _{DS} (V)	V _{GS} (V)	I _D (A)	R _{DS(ON)} (Ω) @20V	R _{DS(ON)} (Ω) @18V	R _{DS(ON)} (Ω) @15V	V _{GS(th)} (V)	V _{GS(th)} (V)	C _{iss} (pF)
SICBG160N120A	TO-263-7L	N	116	1200	-5/+22	18	0.140	0.160	-	1.5	3.0	780
SICW080N120Y	TO-247	N	220	1200	-8/+22	38	-	0.085	-	2.3	3.6	890
SICW080N120Y4	TO-247-4	N	223	1200	-8/+22	39	-	0.085	-	2.3	3.6	890
SICW028N120A4	TO-247-4	N	375	1200	-5/+22	80	0.030	0.035	-	1.5	3.0	3570
SICW1000N170A	TO-247AB	N	69	1700	-5/+25	3	1.320	1.370	1.480	2.5	4.5	124
SICW400N170A	TO-247AB	N	125	1700	-5/+25	6	0.500	0.550	-	2.0	4.5	333

SiC SBDs

650V

Part Number	Package	Scroll to view Configuration	Average Forward Current	Peak Repetitive Reverse Voltage	Forward Voltage	Junction Temperature
			I _F (A)	V _{RRM} (V)	V _F (V)	(°C)
SICU0260B	DPAK	Single	2	650	1.6	-55~+175
SIC0260Y	TO-220AC	Single	2	650	1.6	-55~+175
SICU0460B	DPAK	Single	4	650	1.8	-55~+175
SICU0660P	DPAK	Single	6	650	1.5	-55~+175
SIC0660P	TO-220AC	Single	6	650	1.5	-55~+175
SICB0860P	D2-PAK	Single	8	650	1.55	-55~+175
SIC0860PL8	DFN8080A	Single	8	650	1.55	-55~+175
SICU0860P	DPAK	Single	8	650	1.55	-55~+175
SICF0860P	ITO-220AC	Single	8	650	1.55	-55~+175
SIC0860P	TO-220AC	Single	8	650	1.55	-55~+175
SICB1060P	D2-PAK	Single	10	650	1.55	-55~+175
SIC1060PL8	DFN8080A	Single	10	650	1.55	-55~+175
SICU1060P	DPAK	Single	10	650	1.55	-55~+175
SICF1060P	ITO-220AC	Single	10	650	1.55	-55~+175
SIC1060P	TO-220AC	Single	10	650	1.55	-55~+175
SICB2060Y	D2-PAK	Single	20	650	1.55	-55~+175
SICF2060Y	ITO-220AC	Single	20	650	1.55	-55~+175
SIC2060Y	TO-220AC	Single	20	650	1.55	-55~+175
SICPT2060DY	TO-247AB	Dual	20	650	1.55	-55~+175
SICPT2060Y	TO-247AD	Single	20	650	1.55	-55~+175
SICPT3060Y	TO-247AD	Single	30	650	1.65	-55~+175
SICU1060XY	DPAK	Single	32	650	1.55	-55~+175
SICPT4060DY	TO-247AB	Dual	40	650	1.55	-55~+175
SICB5060XY	D2-PAK	Single	50	650	1.6	-55~+175
SICPT5060Y	TO-247AD	Single	50	650	1.6	-55~+175

SiC SBDs

1200V

Part Number	Package	Scroll to view Configuration	Average Forward Current	Peak Repetitive Reverse Voltage	Forward Voltage	Junction Temperature
			I _F (A)	V _{RRM} (V)	V _F (V)	(°C)
SICU02120B	DPAK	Single	2	1200	1.7	-55~+175
SICB10120Y	D2-PAK	Single	10	1200	1.54	-55~+175
SICB10120YA	D2-PAK	Single	10	1200	1.54	-55~+175
SICU10120Y	DPAK	Single	10	1200	1.54	-55~+175
SICF10120Y	ITO-220AC	Single	10	1200	1.54	-55~+175
SIC10120Y	TO-220AC	Single	10	1200	1.54	-55~+175
SICPT10120Y	TO-247AD	Single	10	1200	1.54	-55~+175
SIC15120Y	TO-220AC	Single	15	1200	1.45	-55~+175
SICPT15120Y	TO-247AD	Single	15	1200	1.45	-55~+175
SICB20120Y	D2-PAK	Single	20	1200	1.55	-55~+175
SICPT20120DY	TO-247AB	Dual	20	1200	1.54	-55~+175
SICPT20120Y	TO-247AD	Single	20	1200	1.55	-55~+175
SICPT30120DY	TO-247AB	Dual	30	1200	1.45	-55~+175
SICPT30120YA	TO-247AD	Single	30	1200	1.58	-55~+175
SICPT30120YB	TO-247AD	Single	30	1200	1.75	-55~+175
SICPT40120DY	TO-247AB	Dual	40	1200	1.55	-55~+175
SICPT40120Y	TO-247AD	Single	40	1200	1.6	-55~+175
SICPT40120YA	TO-247AD	Single	40	1200	1.58	-55~+175