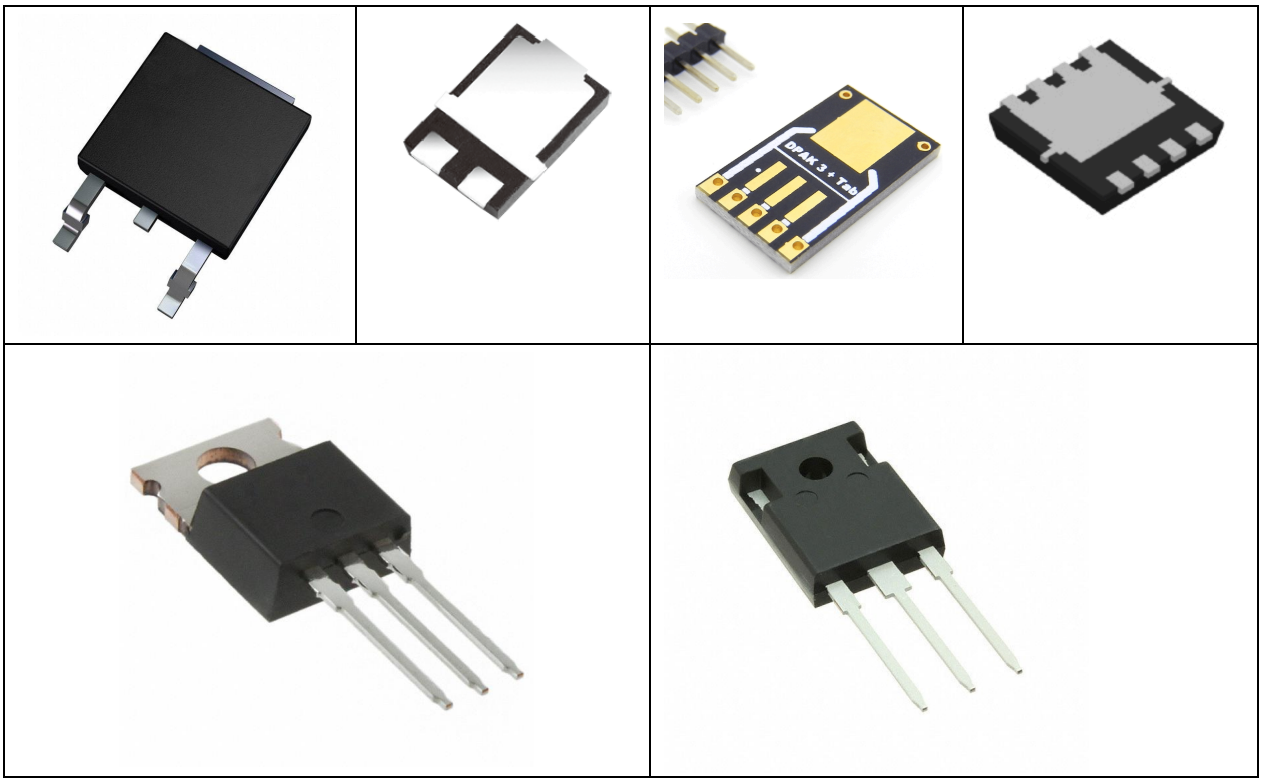
SiC Series Products selection guide

Schottky Diodes and MOSFETs

Novel SiC Products Selection Guide



Specifications are subject to change without notice.
The data indicated herein describe types of components and shall not be considered as assured characteristics.

The products listed in this catalog are not recommended for use in life support systems where a failure or malfunction of the component may directly threaten life or cause injury.

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SMD Package

Amp	DFN3X3	DFN5X6	TO-277	DFN 8X8	TO-252(DPak)	TO-263(D2Pak)
10	CBR10P65D3		CBR10P65S CBR10120S		CBR10P65K CBR10120K	
20			CBR20120S			
30		CBR30120D5	CBR30120S			
40						

DFN 3X3 is unique package and CBR10P65D3 is first smallest SiC SBD Diode in the industry.

TO-277 has same foot print with TO-252 (D Pak), and has better thermal performance.

Through Hole Package

Amp	TO-220AC	TO-220AB	TO-247	TO-247 (Dual Die)
10	CBR10P65 CBR10120	CBR10120P	CBR10120W	
20	CBR20P65 CBR20120	CBR20P65PC CBR20120P	CBR20P65W	CBR20P65WC CBR20120WC
30			CBR30120W	
40				CBR40120WC

Part Nomenclature

Example: CBR20P65PC	
CBR	SiC Barrier Rectifier
CMS	SiC MOSFET
20	IF, Forward current, as 20A
P65	Breakdown Voltage, as P65=650V, 120=1200V
PC	Package Code Blank: TO-220AC P: TO-220AB PC: TO-220AB, Dual Die K: TO-252, DPAK W: TO-247 WC: TO-247, Dual Die S: TO-277 A: SMA, B: SMB, C: SMC B: TO-263, D2PAK D: DFN, D3: DFN3X3, D5: DFN 5X6, D8, DFN 8X8

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Comparison with industry supplier-TO-220AC/AB

Amp	Bruckewell		ST-Micro		Infineon	
	TO-220AC	TO-220AB	TO-220AC	TO-220AB	TO-220AC	TO-220AB
10	CBR10P65 CBR10120	CBR10120P	STPSC10H065D STPSC10H12D	STPSC10TH13TI	IDH10G65C5 IDH10G120C5	
20	CBR20P65 CBR20120	CBR20P65PC CBR20120P	STPSC20065D STPSC20H12D	STPSC20H065C	IDH20G65C5 IDH20G120C5	
30						
40						

Comparison with industry supplier-TO-247 Single/ Dual Die

Amp	Bruckewell		ST-Micro		Infineon	
	TO-247	TO-247 Dual	TO-247	TO-247 Dual	TO-247	TO-247 Dual
10	CBR10120W				IDW10G65C5	IDW10G120C5B
20	CBR20P65W	CBR20P65WC CBR20120WC	STPSC20065W	STPSC20H065CW	IDW20G65C5	IDW20G65C5B IDW20G120C5B
30	CBR30120W				IDW30G65C5	IDW30G120C5B
40		CBR40120WC		STPSC40065CW		IDW40G65C5B

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Schottky Diodes and MOSFETs

Product	VRRM Min (V)	VF typ (V)	IR Max (uA)	IO(rec) Max (A)	Number of Diodes	Package
CBR10P65	650	1.5	10	10	1	TO-220AC
CBR10P65K	650	1.5	10	10	1	DPAK (TO-252)
CBR10P65S	650	1.5	10	10	1	TO-277
CBR10P65D3	650	1.5	10	10	1	DFN3.3
CBR20P65PC	650	1.5	10	20	2	TO-220AB
CBR20P65	650	1.5	10	20	1	TO-220AC
CBR20P65W	650	1.5	10	20	1	TO-247
CBR20P65WC	650	1.5	10	20	2	TO-247
CBR10120	1200	1.5	10	10	1	TO-220AC
CBR10120P	1200	1.5	10	10	1	TO-220AB
CBR10120K	1200	1.5	10	10	1	DPAK (TO-252)
CBR10120S	1200	1.5	10	10	1	TO-277
CBR10120W	1200	1.5	10	10	1	TO-247
CBR20120WC	1200	1.5	10	20	2	TO-247
CBR20120	1200	1.5	10	20	1	TO-220AC
CBR20120P	1200	1.5	10	20	1	TO-220AB
CBR20120S	1200	1.5	10	20	1	TO-277
CBR30120W	1200	1.5	10	30	1	TO-247
CBR30120S	1200	1.5	10	30	1	TO-277
CBR30120D5	1200	1.5	10	30	1	DFN 5X6
CBR40120WC	1200	1.5	10	40	2	TO-247

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