



功率元器件

SiC功率元器件

CONTENTS

■肖特基势垒二极管	P. B2
■SiC-MOSFET	P. B5
■全SiC功率模块	P. B7






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已通过ISO9001/ISO/TS 16949 认证

肖特基势垒二极管

●快速参考

V _{RM} (V)	I _F (A)	Leaded Type				Surface Mounted Type				
										
		TO-220AC	TO-220ACP	TO-220FM	TO-247		TO-263AB (LPTL)			
650	6	SCS206AG SCS206AGHR	13 19 <i>New</i> SCS306AP	25	SCS206AM	28		SCS206AJ SCS206AJHR	1 7	
	8	SCS208AG SCS208AGHR	14 20 <i>New</i> SCS308AP	26	SCS208AM	29		SCS208AJ SCS208AJHR	2 8	
	10	SCS210AG SCS210AGHR	15 21 <i>New</i> SCS310AP	27	SCS210AM	30		SCS210AJ SCS210AJHR	3 9	
	12	SCS212AG SCS212AGHR	16 22		SCS212AM	31		SCS212AJ SCS212AJHR	4 10	
	15	SCS215AG SCS215AGHR	17 23		SCS215AM	32	SCS215AE	34	SCS215AJ SCS215AJHR	5 11
	20	SCS220AG SCS220AGHR	18 24		SCS220AM	33	SCS220AE SCS220AE2 SCS220AE2HR	35 36 39	SCS220AJ SCS220AJHR	6 12
	30						SCS230AE2 SCS230AE2HR	37 40		
	40						SCS240AE2 SCS240AE2HR	38 41		
1,200	5	SCS205KG SCS205KGHR	42 46							
	10	SCS210KG SCS210KGHR	43 47				SCS210KE2 SCS210KE2HR	50 54		
	15	SCS215KG SCS215KGHR	44 48							
	20	SCS220KG SCS220KGHR	45 49				SCS220KE2 SCS220KE2HR	51 55		
	30						SCS230KE2 <i>New</i> SCS230KE2AHR	52 56		
	40						SCS240KE2 <i>New</i> SCS240KE2AHR	53 57		

注) ()内表示ROHM封装。



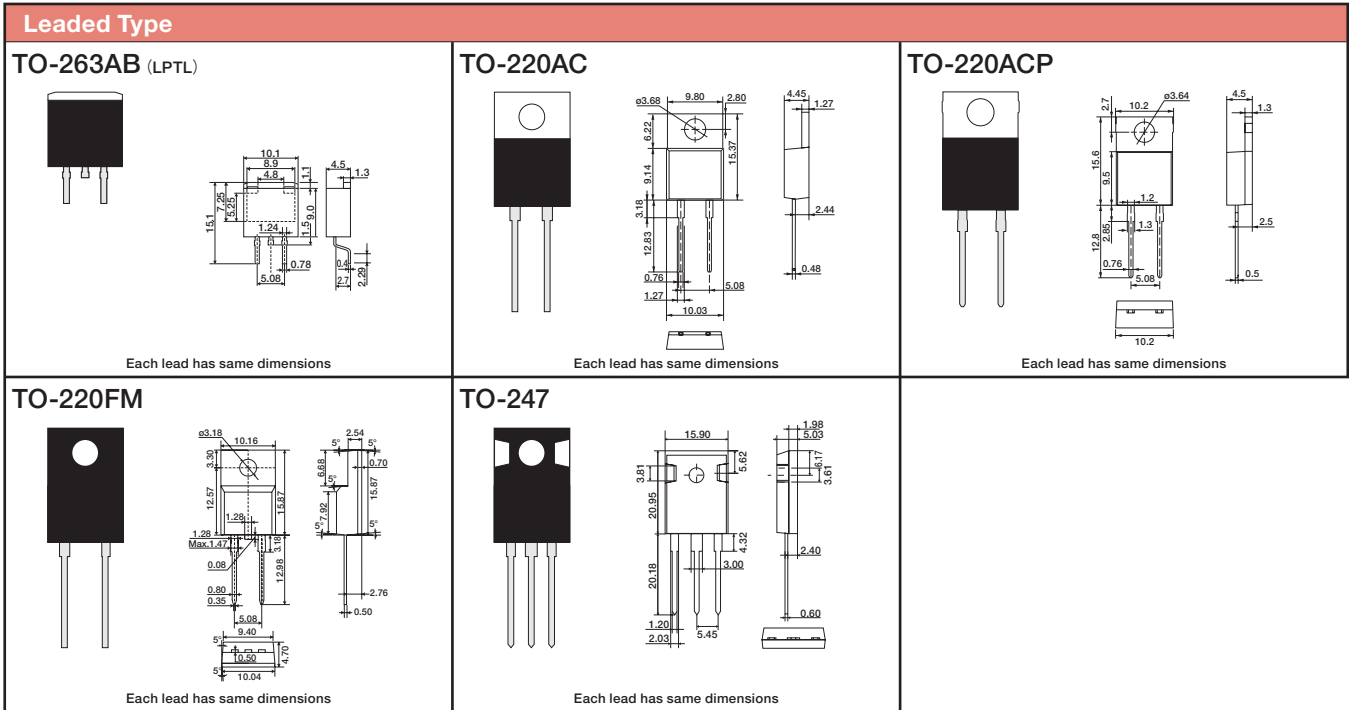
肖特基势垒二极管												
No.	Part No.	Automotive Grade Available (AEC-Q101*2)	Absolute Maximum Ratings (Ta=25°C)				Electrical Characteristics (Ta=25°C)				Package	Equivalent Circuit Diagram
			V _{RM} (V)	V _R (V)	I _F (A)	I _{FSM} (A) 50Hz, 1~	V _F (V) Typ.	I _F (A)	I _R (μA) Max.	V _R (V)		
1	SCS206AJ	—	650	650	6	22	1.35	6	120	600	TO-263AB (LPTL)	
2	SCS208AJ	—	650	650	8	29	1.35	8	160	600		
3	SCS210AJ	—	650	650	10	38	1.35	10	200	600		
4	SCS212AJ	—	650	650	12	42	1.35	12	240	600		
5	SCS215AJ	—	650	650	15	52	1.35	15	300	600		
6	SCS220AJ	—	650	650	20	67	1.35	20	400	600		
7	SCS206AJHR	Yes	650	650	6	22	1.35	6	120	600		
8	SCS208AJHR	Yes	650	650	8	29	1.35	8	160	600		
9	SCS210AJHR	Yes	650	650	10	38	1.35	10	200	600		
10	SCS212AJHR	Yes	650	650	12	42	1.35	12	240	600		
11	SCS215AJHR	Yes	650	650	15	52	1.35	15	300	600		
12	SCS220AJHR	Yes	650	650	20	67	1.35	20	400	600		
13	SCS206AG	—	650	650	6	22	1.35	6	120	600	TO-220AC	
14	SCS208AG	—	650	650	8	29	1.35	8	160	600		
15	SCS210AG	—	650	650	10	38	1.35	10	200	600		
16	SCS212AG	—	650	650	12	42	1.35	12	240	600		
17	SCS215AG	—	650	650	15	52	1.35	15	300	600		
18	SCS220AG	—	650	650	20	67	1.35	20	400	600		
19	SCS206AGHR	Yes	650	650	6	22	1.35	6	120	600		
20	SCS208AGHR	Yes	650	650	8	29	1.35	8	160	600		
21	SCS210AGHR	Yes	650	650	10	38	1.35	10	200	600		
22	SCS212AGHR	Yes	650	650	12	42	1.35	12	240	600		
23	SCS215AGHR	Yes	650	650	15	52	1.35	15	300	600		
24	SCS220AGHR	Yes	650	650	20	67	1.35	20	400	600		
25	New SCS306AP	—	650	650	6	47	1.35	6	30	650	TO-220ACP	
26	New SCS308AP	—	650	650	8	67	1.35	8	40	650		
27	New SCS310AP	—	650	650	10	82	1.35	10	50	650		
28	SCS206AM	—	650	650	6	22	1.35	6	120	600	TO-220FM	
29	SCS208AM	—	650	650	8	29	1.35	8	160	600		
30	SCS210AM	—	650	650	10	38	1.35	10	200	600		
31	SCS212AM	—	650	650	12	42	1.35	12	240	600		
32	SCS215AM	—	650	650	15	52	1.35	15	300	600		
33	SCS220AM	—	650	650	20	67	1.35	20	400	600		
34	SCS215AE	—	650	650	15	52	1.35	15	300	600	TO-247	
35	SCS220AE	—	650	650	20	67	1.35	20	400	600		
36	SCS220AE2	—	650	650	10/20*1	38/76*1	1.35	10	200	600		
37	SCS230AE2	—	650	650	15/30*1	52/104*1	1.35	15	300	600		
38	SCS240AE2	—	650	650	20/40*1	67/135*1	1.35	20	400	600		
39	SCS220AE2HR	Yes	650	650	10/20*1	38/76*1	1.35	10	200	600		
40	SCS230AE2HR	Yes	650	650	15/30*1	52/104*1	1.35	15	300	600		
41	SCS240AE2HR	Yes	650	650	20/40*1	67/135*1	1.35	20	400	600		
42	SCS205KG	—	1,200	1,200	5	22	1.4	5	100	1,200	TO-220AC	
43	SCS210KG	—	1,200	1,200	10	42	1.4	10	200	1,200		
44	SCS215KG	—	1,200	1,200	15	62	1.4	15	300	1,200		
45	SCS220KG	—	1,200	1,200	20	78	1.4	20	400	1,200		
46	SCS205KGHR	Yes	1,200	1,200	5	22	1.4	5	100	1,200		
47	SCS210KGHR	Yes	1,200	1,200	10	42	1.4	10	200	1,200		
48	SCS215KGHR	Yes	1,200	1,200	15	62	1.4	15	300	1,200		
49	SCS220KGHR	Yes	1,200	1,200	20	78	1.4	20	400	1,200		
50	SCS210KE2	—	1,200	1,200	5/10*1	22/45*1	1.4	5	100	1,200	TO-247	
51	SCS220KE2	—	1,200	1,200	10/20*1	42/84*1	1.4	10	200	1,200		
52	SCS230KE2	—	1,200	1,200	15/30*1	62/124*1	1.4	15	300	1,200		
53	SCS240KE2	—	1,200	1,200	20/40*1	78/157*1	1.4	20	400	1,200		
54	SCS210KE2HR	Yes	1,200	1,200	5/10*1	22/45*1	1.4	5	100	1,200		
55	SCS220KE2HR	Yes	1,200	1,200	10/20*1	42/84*1	1.4	10	200	1,200		
56	New SCS230KE2AHR	Yes	1,200	1,200	15/30*1	62/124*1	1.4	15	300	1,200		
57	New SCS240KE2AHR	Yes	1,200	1,200	20/40*1	78/157*1	1.4	20	400	1,200		

注)()内表示ROHM封装。

*1(引脚/封装) *2 Rev.C

肖特基势垒二极管

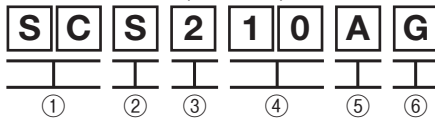
● 尺寸 (单位: mm)



注)()内表示ROHM封装。

● 品名构成说明

● 关于SBD的品名 (基本型号)



- ① SiC分立元器件
- ② SBD
- ③ 世代
- ④ 电流 [A]
例 05 → 5A
10 → 10A

- ⑤ 电压
例 A → 650V
K → 1200V
- ⑥ 封装
例 E → TO-247
E2 → TO-247 (Dual Chip)
G → TO-220AC
P → TO-220ACP
M → TO-220FM
J → TO-263AB (LPTL)

● 封装类型

Package	Code	Packaging style	Basic ordering unit (pcs)
TO-263AB (LPTL)	TLL	Embossed Tape	1000
TO-220AC	C	Tube	50
TO-220ACP	C9	Tube	50
TO-220FM	C	Tube	50
TO-247	C	Tube	30

注)()内表示ROHM封装。



SiC-MOSFET

●快速参考

V _{DSS} (V)	R _{DS(ON)} (mΩ)	Leaded Type				Surface Mounted Type	SiC SBD			
		TO-220AB	TO-247	TO-247N	TO-3PFM	TO-268-2L				
400	120	SCTMU001F (MUSIC SERIES)	24				-			
650	17			New	SCT3017AL	1				
	22			New	SCT3022AL	2				
	30			New	SCT3030AL	3	-			
	60			New	SCT3060AL	4				
	120	SCT2120AF	6		New	SCT3120AL	5	-		
1,200	22			New	SCT3022KL	7	-			
	30			New	SCT3030KL	8	-			
	40			New	SCT3040KL	9	-			
	80		SCT2080KE	13	New	SCT3080KL	10	-		
			SCH2080KE	12				Co-packed		
			☆SCT2080KEAHR	14				-		
			SCT2160KE	15	New	SCT3160KL	11	-		
			☆SCT2160KEAHR	16				-		
			SCT2280KE	17				-		
			☆SCT2280KEAHR	18				-		
			SCT2450KE	19				-		
		☆SCT2450KEAHR	20				-			
1,700	1,150				New	SCT2H12NZ	23	☆SCT2H12NY	21	-
	750							☆SCT2750NY	22	-

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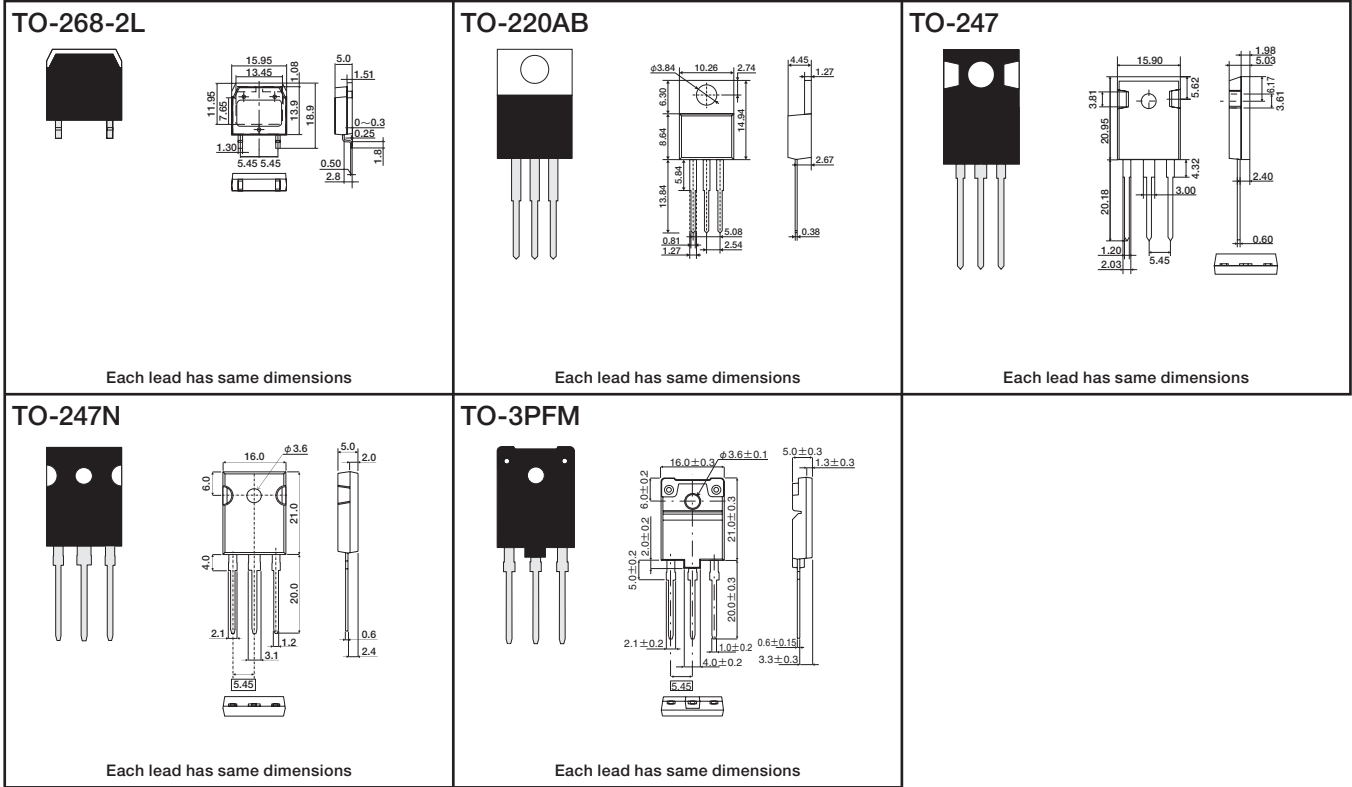
SiC-MOSFET

SWITCHING SERIES											
No.	Part No.	Automotive Grade Available (AEC-Q101)	Polarity (ch)	V _{DSS} (V)	I _D (A)	P _D (W) (T _c =25°C)	R _{DS(on)} Typ. (mΩ)		Q _g Typ. (nC)		Package
							V _{GS} =18V	V _{GS} =18V	V _{GS} =18V	Drive Voltage (V)	
1	New SCT3017AL	-	N	650	118	427	17	172	18		TO-247N
2	New SCT3022AL	-	N	650	93	339	22	133	18		
3	New SCT3030AL	-	N	650	70	262	30	104	18		
4	New SCT3060AL	-	N	650	39	165	60	58	18		
5	New SCT3120AL	-	N	650	21	103	120	38	18		
6	SCT2120AF	-	N	650	29	165	120	61	18		TO-220AB
7	New SCT3022KL	-	N	1,200	95	427	22	178	18		TO-247N
8	New SCT3030KL	-	N	1,200	72	339	30	131	18		
9	New SCT3040KL	-	N	1,200	55	262	40	107	18		
10	New SCT3080KL	-	N	1,200	31	165	80	60	18		
11	New SCT3160KL	-	N	1,200	17	103	160	42	18		
12	SCH2080KE	-	N	1,200	40	262	80	106	18		
13	SCT2080KE	-	N	1,200	40	262	80	106	18		
14	☆SCT2080KEAHR	Yes	N	1,200	40	262	80	106	18		
15	SCT2160KE	-	N	1,200	22	165	160	62	18		
16	☆SCT2160KEAHR	Yes	N	1,200	22	165	160	62	18		
17	SCT2280KE	-	N	1,200	14	108	280	35	18		
18	☆SCT2280KEAHR	Yes	N	1,200	14	108	280	35	18		
19	SCT2450KE	-	N	1,200	10	85	450	27	18		
20	☆SCT2450KEAHR	Yes	N	1,200	10	85	450	27	18		
21	☆SCT2H12NY	-	N	1,700	4	44	1,150	14	18		TO-268-2L
22	☆SCT2750NY	-	N	1,700	5.9	57	750	17	18		
23	New SCT2H12NZ	-	N	1,700	3.7	35	1150	14	18		TO-3PFM
MUSIC SERIES											
24	SCTMU001F	-	N	400	20	132	120	59	18		TO-220AB

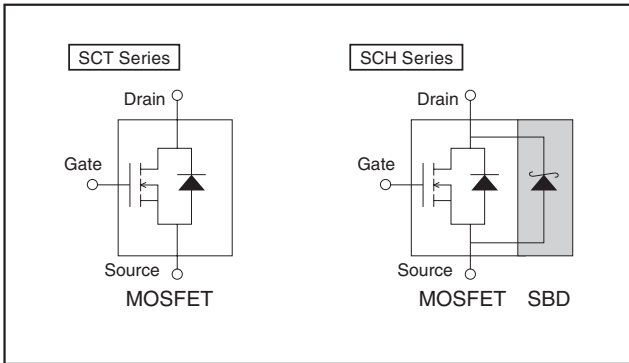
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SiC-MOSFET

● 尺寸 (单位: mm)

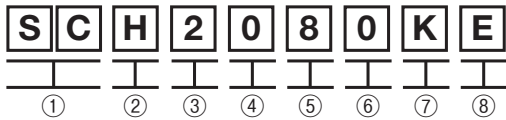


● 内部电路图



● 品名构成说明

● 关于MOSFET的品名 (基本型号)



- ① SiC分立元器件
- ② H → MOSFET+SBD
T → MOSFET
- ③ 世代
- ④ } ON-resistance [mΩ]
- ⑤ } H12 = 1.2 Ω
- ⑥ }


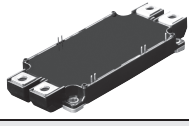
- ⑦ 电压 A → 650V
K → 1,200V
N → 1,700V
- ⑧ 封装 F → TO-220AB
E → TO-247
L → TO-247N
Y → TO-268-2L
Z → TO-3PFM

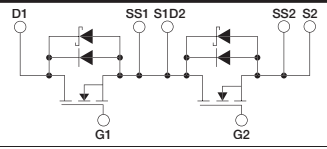
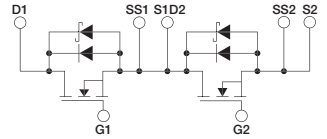
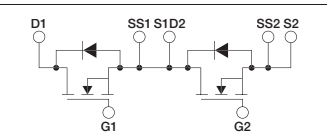
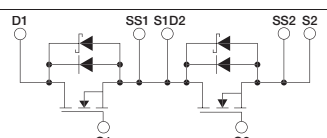
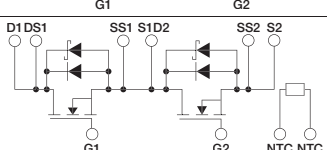
● 封装类型

Package	Code	Packaging Style	Basic Ordering Unit (pcs)
TO-268-2L	TB	Embossed Tape	400
TO-220AB	C	Tube	50
TO-247	C	Tube	30
TO-247N	C11	Tube	30
TO-3PFM	C11	Tube	30

全SiC功率模块

● 快速参考

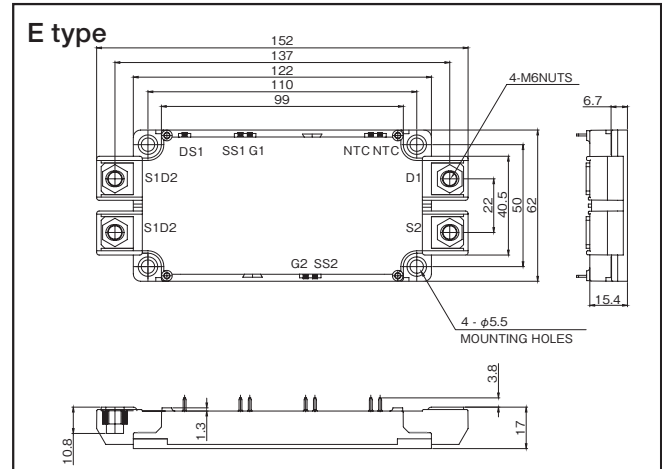
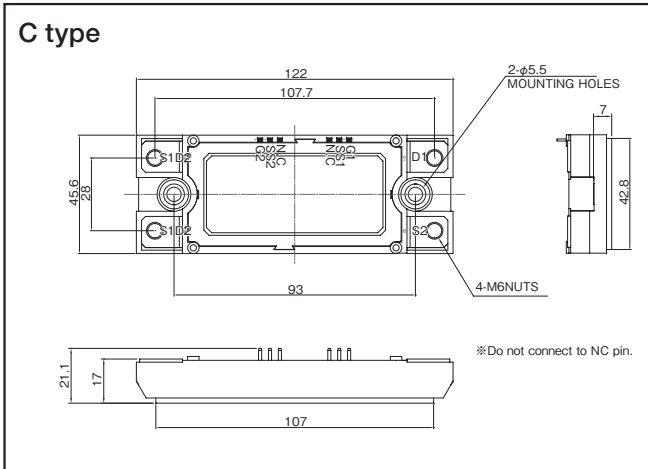
V _{DS} (V)	R _{DS (ON)} (mΩ)	Case Type	
			
		C type	E type
1,200	34	New BSM080D12P2C008	—
	20	BSM120D12P2C005	—
	12.8	BSM180D12P2C101	—
	10	BSM180D12P3C007	—
	7.3	—	BSM300D12P2E001

全SiC功率模块							
Part No.	Absolute Maximum Ratings (Ta=25°C)					Package	Internal Circuit
	V _{DS} (V)	I _D (A) [Tc=60°C]	T _j (°C)	T _{stg} (°C)	Visol (V) AC 1Min.		
New BSM080D12P2C008	1,200	80	-40 to +175	-40 to +125	2,500	C type	
BSM120D12P2C005	1,200	120	-40 to +175	-40 to +125	2,500		
BSM180D12P2C101	1,200	180	-40 to +175	-40 to +125	2,500		
BSM180D12P3C007	1,200	180	-40 to +175	-40 to +125	2,500		
BSM300D12P2E001	1,200	300	-40 to +175	-40 to +125	2,500	E type	

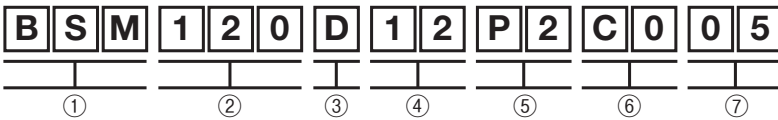
B
SiC功率元器件

全SiC功率模块

●尺寸 (单位: mm)



●品名构成说明



- ① SiC功率模块
- ② 额定电流
- ③ 内部电路
D…半桥
C…斩波
- ④ 耐压
例 12 → 1200V
- ⑤ 器件类型
P2…使用第二代SiC MOSFET
P3…使用第三代SiC MOSFET
- ⑥ 规格类型
- ⑦ 追加型号