

SiC MOSFET

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P.131

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SiC MOSFET

● SiC MOSFET一览表

V _{DSS} (V)	R _{DS(on)} (mΩ)	Leaded type						Surface Mounted type			
											
		TO-247 (TO-247N)	TO-247-4L	TO-3PFM				TO-263-7L	TO-263-7LA		
650	17	SCT3017AL SCT3017ALHR	10 36								
	22	SCT3022AL SCT3022ALHR	11 37								
	30	SCT3030AL SCT3030ALHR	12 38	SCT3030AR SCT3030ARHR	22 48			SCT3030AW7	28		
	60	SCT3060AL SCT3060ALHR	13 39	SCT3060AR SCT3060ARHR	23 49			SCT3060AW7	29		
	80	SCT3080AL SCT3080ALHR	14 40	SCT3080AR SCT3080ARHR	24 50			SCT3080AW7	30		
	120	New SCT3120AL SCT3120ALHR	15 41					SCT3120AW7	31		
750	13	SCT4013DE	55	SCT4013DR	61			SCT4013DW7	67		
	26	SCT4026DE SCT4026DEHR	56 76	SCT4026DR SCT4026DRHR	62 80			SCT4026DW7 SCT4026DW7HR	68 84	New SCT4026DWA New SCT4026DWAHR	73 87
	45	SCT4045DE SCT4045DEHR	57 77	SCT4045DR SCT4045DRHR	63 81			SCT4045DW7 SCT4045DW7HR	69 85	New SCT4045DWA New SCT4045DWAHR	74 88
1,200	18	SCT4018KE	58	SCT4018KR	64			SCT4018KW7	70		
	22	SCT3022KL SCT3022KLHR	16 42								
	30	SCT3030KL SCT3030KLHR	17 43								
	36	SCT4036KE SCT4036KEHR	59 78	SCT4036KR SCT4036KRHR	65 82			SCT4036KW7	71		
	40	SCT3040KL SCT3040KLHR	18 44	SCT3040KR SCT3040KRHR	25 51			SCT3040KW7	32		
	62	SCT4062KE SCT4062KEHR	60 79	SCT4062KR SCT4062KRHR	66 83			SCT4062KW7 SCT4062KW7HR	72 86	New SCT4062KWA New SCT4062KWAHR	75 89
	80	SCT2080KE SCT2080KEHR SCT3080KL SCT3080KLHR	1 6 19 45	SCT3080KR SCT3080KRHR	26 52			SCT3080KW7	33		
	105	SCT3105KL SCT3105KLHR	20 46	SCT3105KR SCT3105KRHR	27 53			SCT3105KW7	34		
	160	SCT2160KE SCT2160KEHR SCT3160KL New SCT3160KLHR	2 7 21 47					SCT3160KW7 New SCT3160KW7HR	35 54		
	280	SCT2280KE SCT2280KEHR	3 8								
	450	SCT2450KE SCT2450KEHR	4 9								
1,700	1,150			SCT2H12NZ	5						

注：封装采用JEDEC表示。()内表示ROHM封装。

SiC MOSFET

第2代(平面型)										
No.	Part No.	Polarity (ch)	V _{DSS} (V)	I _D (A)	P _D (W) (T _C =25°C)	R _{DS (on)} Typ (mΩ)	Qg Typ (nC)		Package	Automotive Grade AEC-Q101
						V _{GS} =18V	V _{GS} =18V	Drive Voltage (V)		
1	SCT2080KE	N	1,200	40	262	80	106	18	TO-247 (TO-247N)	—
2	SCT2160KE	N		22	165	160	62	18		—
3	SCT2280KE	N		14	108	280	36	18		—
4	SCT2450KE	N		10	85	450	27	18		—
5	SCT2H12NZ	N	1,700	3.7	35	1,150	14	18	TO-3PFM	—
6	SCT2080KEHR	N	1,200	40	262	80	106	18	TO-247 (TO-247N)	YES
7	SCT2160KEHR	N		22	165	160	62	18		YES
8	SCT2280KEHR	N		14	108	280	36	18		YES
9	SCT2450KEHR	N		10	85	450	27	18		YES
第3代(沟槽型)										
10	SCT3017AL	N	650	118	427	17	172	18	TO-247 (TO-247N)	—
11	SCT3022AL	N		93	339	22	133	18		—
12	SCT3030AL	N		70	262	30	104	18		—
13	SCT3060AL	N		39	165	60	58	18		—
14	SCT3080AL	N		30	134	80	48	18		—
15	SCT3120AL	N		21	103	120	38	18		—
16	SCT3022KL	N	1,200	95	427	22	178	18		—
17	SCT3030KL	N		72	339	30	131	18		—
18	SCT3040KL	N		55	262	40	107	18		—
19	SCT3080KL	N		31	165	80	60	18		—
20	SCT3105KL	N		24	134	105	51	18		—
21	SCT3160KL	N		17	103	160	42	18		—
22	SCT3030AR	N	650	70	262	30	104	18	TO-247-4L	—
23	SCT3060AR	N		39	165	60	58	18		—
24	SCT3080AR	N		30	134	80	48	18		—
25	SCT3040KR	N	1,200	55	262	40	107	18		—
26	SCT3080KR	N		31	165	80	60	18		—
27	SCT3105KR	N		24	134	105	51	18		—
28	SCT3030AW7	N	650	70	267	30	104	18	TO-263-7L	—
29	SCT3060AW7	N		38	159	60	58	18		—
30	SCT3080AW7	N		29	125	80	48	18		—
31	SCT3120AW7	N		21	100	120	38	18		—
32	SCT3040KW7	N	1,200	56	267	40	107	18		—
33	SCT3080KW7	N		30	159	80	60	18		—
34	SCT3105KW7	N		23	125	105	51	18		—
35	SCT3160KW7	N		17	100	160	42	18		—
36	SCT3017ALHR	N	650	118	427	17	172	18	TO-247 (TO-247N)	YES
37	SCT3022ALHR	N		93	339	22	133	18		YES
38	SCT3030ALHR	N		70	262	30	104	18		YES
39	SCT3060ALHR	N		39	165	60	58	18		YES
40	SCT3080ALHR	N		30	134	80	48	18		YES
41	New SCT3120ALHR	N		21	103	120	38	18		YES
42	SCT3022KLHR	N	1,200	95	427	22	178	18		YES
43	SCT3030KLHR	N		72	339	30	131	18		YES
44	SCT3040KLHR	N		55	262	40	107	18		YES
45	SCT3080KLHR	N		31	165	80	60	18		YES
46	SCT3105KLHR	N		24	134	105	51	18		YES
47	New SCT3160KLHR	N		17	103	160	42	18		YES
48	SCT3030ARHR	N	650	70	262	30	104	18	TO-247-4L	YES
49	SCT3060ARHR	N		39	165	60	58	18		YES
50	SCT3080ARHR	N		30	134	80	48	18		YES
51	SCT3040KRHR	N	1,200	55	262	40	107	18		YES
52	SCT3080KRHR	N		31	165	80	60	18		YES
53	SCT3105KRHR	N		24	134	105	51	18		YES
54	New SCT3160KW7HR	N		17	100	160	42	18	TO-263-7L	YES

注：封装采用JEDEC表示。()内表示ROHM封装。

第4代(沟槽型)										
No.	Part No.	Polarity (ch)	V _{DSS} (V)	I _D (A)	P _D (W) (T _C =25°C)	R _{DS(on)} Typ (mΩ)	Qg Typ (nC)		Package	Automotive Grade AEC-Q101
						V _{GS} =18V	V _{GS} =18V	Drive Voltage (V)		
55	SCT4013DE	N	750	105	312	13	170	15 to 18	TO-247 (TO-247N)	—
56	SCT4026DE	N		56	176	26	94	15 to 18		—
57	SCT4045DE	N		34	115	45	63	15 to 18		—
58	SCT4018KE	N	1,200	81	312	18	170	15 to 18		—
59	SCT4036KE	N		43	176	36	91	15 to 18		—
60	SCT4062KE	N		26	115	62	64	15 to 18		—
61	SCT4013DR	N	750	105	312	13	170	15 to 18	TO-247-4L	—
62	SCT4026DR	N		56	176	26	94	15 to 18		—
63	SCT4045DR	N		34	115	45	63	15 to 18		—
64	SCT4018KR	N	1,200	81	312	18	170	15 to 18		—
65	SCT4036KR	N		43	176	36	91	15 to 18		—
66	SCT4062KR	N		26	115	62	64	15 to 18		—
67	SCT4013DW7	N	750	98	267	13	170	15 to 18	TO-263-7L	—
68	SCT4026DW7	N		51	150	26	94	15 to 18		—
69	SCT4045DW7	N		31	93	45	63	15 to 18		—
70	SCT4018KW7	N	1,200	75	267	18	170	15 to 18		—
71	SCT4036KW7	N		40	150	36	91	15 to 18		—
72	SCT4062KW7	N		24	93	62	64	15 to 18		—
73	New SCT4026DWA	N	750	51	150	26	94	15 to 18	TO-263-7LA	—
74	New SCT4045DWA	N		31	93	45	63	15 to 18		—
75	New SCT4062KWA	N	1,200	24	93	62	64	15 to 18		—
76	SCT4026DEHR	N	750	56	176	26	94	15 to 18	TO-247 (TO-247N)	YES
77	SCT4045DEHR	N		34	115	45	63	15 to 18		YES
78	SCT4036KEHR	N		43	176	36	91	15 to 18		YES
79	SCT4062KEHR	N	1,200	26	115	62	64	15 to 18		YES
80	SCT4026DRHR	N	750	56	176	26	94	15 to 18	TO-247-4L	YES
81	SCT4045DRHR	N		34	115	45	63	15 to 18		YES
82	SCT4036KRHR	N		43	176	36	91	15 to 18		YES
83	SCT4062KRHR	N	1,200	26	115	62	64	15 to 18		YES
84	SCT4026DW7HR	N	750	51	150	26	94	15 to 18	TO-263-7L	YES
85	SCT4045DW7HR	N		31	93	45	63	15 to 18		YES
86	SCT4062KW7HR	N	1,200	24	93	62	64	15 to 18		YES
87	New SCT4026DWAHR	N	750	51	150	26	94	15 to 18	TO-263-7LA	YES
88	New SCT4045DWAHR	N		31	93	45	63	15 to 18		YES
89	New SCT4062KWAHR	N	1,200	24	93	62	64	15 to 18		YES

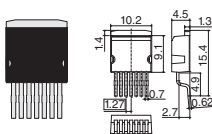
注：封装采用JEDEC表示。()内表示ROHM封装。

SiC MOSFET

●外形尺寸图 (单位: mm)

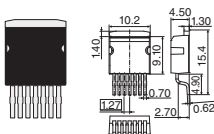
表面贴装型

TO-263-7L



Each lead has same dimensions

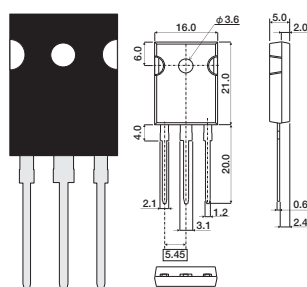
TO-263-7LA



Each lead has same dimensions

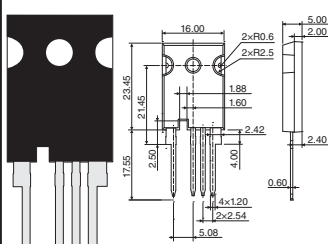
引脚插入型

TO-247 (TO-247N)



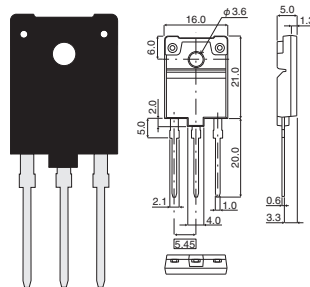
Each lead has same dimensions

TO-247-4L



Each lead has same dimensions

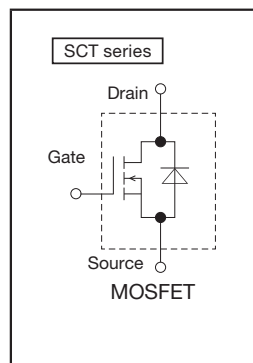
TO-3PFM



Each lead has same dimensions

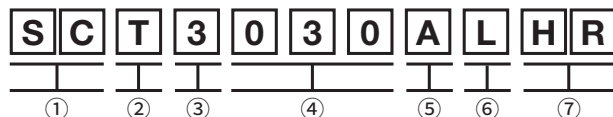
注: 封装采用JEDEC表示。()内表示ROHM封装。

●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 | ⑤ 电压 | A → 650V |
| ② T → MOSFET | | D → 750V |
| ③ 世代 | | K → 1,200V |
| ④ ON-resistance[mΩ] | | N → 1,700V |
| 080=80mΩ | ⑥ 封装 | E, L → TO-247 (TO-247N) |
| H12=1.2Ω | | Z → TO-3PFM |
| | | R → TO-247-4L |
| | | W7 → TO-263-7L |
| | | WA → TO-263-7LA |
| | ⑦ 表示支持车载 | |

●封装类型

Package	Code	Packaging Style	Basic Ordering Unit (pcs)
TO-263-7L TO-263-7LA	TL	Embossed Tape	1,000
TO-247 (TO-247N)	C11	Tube	30
TO-247-4L	C15	Tube	30
TO-3PFM	C11	Tube	30

注: 封装采用JEDEC表示。()内表示ROHM封装。