

By Category PDF

Category SiC MOSFETs

Power Devices

SiC MOSFETs

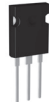
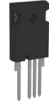
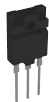

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SiC MOSFETs P.133

SiC MOSFETs

● Quick Reference for SiC MOSFETs

V _{DSS} (V)	R _{DS(on)} (mΩ)	Leaded type			Surface Mounted type		
		 TO-247 (TO-247N)	 TO-247-4L <C15>	 TO-3PFM	 TO-263-7L		
650	17	SCT3017AL SCT3017ALHR	10 11				
	22	SCT3022AL SCT3022ALHR	12 13				
	30	SCT3030AL SCT3030ALHR	14 15	SCT3030AR <i>New</i> SCT3030ARHR	32 33	SCT3030AW7	44
	60	SCT3060AL SCT3060ALHR	16 17	SCT3060AR <i>New</i> SCT3060ARHR	34 35	SCT3060AW7	45
	80	SCT3080AL SCT3080ALHR	18 19	SCT3080AR <i>New</i> SCT3080ARHR	36 37	SCT3080AW7	46
	120	SCT3120AL	20			SCT3120AW7	47
750	13	<i>New</i> SCT4013DE	52	<i>New</i> SCT4013DR	58	<i>New</i> SCT4013DW7	64
	26	<i>New</i> SCT4026DE <i>New</i> SCT4026DEHR	53 70	<i>New</i> SCT4026DR <i>New</i> SCT4026DRHR	59 74	<i>New</i> SCT4026DW7 <i>New</i> SCT4026DW7HR	65 78
	45	<i>New</i> SCT4045DE <i>New</i> SCT4045DEHR	54 71	<i>New</i> SCT4045DR <i>New</i> SCT4045DRHR	60 75	<i>New</i> SCT4045DW7 <i>New</i> SCT4045DW7HR	66 79
1,200	18	<i>New</i> SCT4018KE	55	<i>New</i> SCT4018KR	61	<i>New</i> SCT4018KW7	67
	22	SCT3022KL SCT3022KLHR	21 22				
	30	SCT3030KL SCT3030KLHR	23 24				
	36	<i>New</i> SCT4036KE <i>New</i> SCT4036KEHR	56 72	<i>New</i> SCT4036KR <i>New</i> SCT4036KRHR	62 76	<i>New</i> SCT4036KW7	68
	40	SCT3040KL SCT3040KLHR	25 26	SCT3040KR <i>New</i> SCT3040KRHR	38 39	SCT3040KW7	48
	62	<i>New</i> SCT4062KE <i>New</i> SCT4062KEHR	57 73	<i>New</i> SCT4062KR <i>New</i> SCT4062KRHR	63 77	<i>New</i> SCT4062KW7 <i>New</i> SCT4062KW7HR	69 80
	80	SCT2080KE SCT2080KEHR SCT3080KL SCT3080KLHR	1 2 27 28	SCT3080KR <i>New</i> SCT3080KRHR	40 41	SCT3080KW7	49
	105	SCT3105KL SCT3105KLHR	29 30	SCT3015KR <i>New</i> SCT3015KRHR	42 43	SCT3105KW7	50
	160	SCT2160KE SCT2160KEHR SCT3160KL	3 4 31			SCT3160KW7	51
	280	SCT2280KE SCT2280KEHR	5 6				
450	SCT2450KE SCT2450KEHR	7 8					
1,700	1,150			SCT2H12NZ	9		
	750						

Note: Package is JEDEC code. (): ROHM Package. < > is Packing code.

SiC MOSFETs

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2nd Generation (Planar type)												
No.	Part No.	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	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	SCT2080KEHR	N		40	262	80	106	18		YES		
3	SCT2160KE	N		22	165	160	62	18		—		
4	SCT2160KEHR	N		22	165	160	62	18		YES		
5	SCT2280KE	N		14	108	280	36	18		—		
6	SCT2280KEHR	N		14	108	280	36	18		YES		
7	SCT2450KE	N		10	85	450	27	18		—		
8	SCT2450KEHR	N		10	85	450	27	18		YES		
9	SCT2H12NZ	N	1,700	3.7	35	1,150	14	18	TO-3PFM	—		
3rd Generation (Trench type)												
10	SCT3017AL	N	650	118	427	17	172	18	TO-247 (TO-247N)	—		
11	SCT3017ALHR	N		118	427	17	172	18		YES		
12	SCT3022AL	N		93	339	22	133	18		—		
13	SCT3022ALHR	N		93	339	22	133	18		YES		
14	SCT3030AL	N		70	262	30	104	18		—		
15	SCT3030ALHR	N		70	262	30	104	18		YES		
16	SCT3060AL	N		39	165	60	58	18		—		
17	SCT3060ALHR	N		39	165	60	58	18		YES		
18	SCT3080AL	N		30	134	80	48	18		—		
19	SCT3080ALHR	N		30	134	80	48	18		YES		
20	SCT3120AL	N		21	103	120	38	18		—		
21	SCT3022KL	N		1,200	95	427	22	178		18	TO-247-4L <C15>	—
22	SCT3022KLHR	N			95	427	22	178		18		YES
23	SCT3030KL	N			72	339	30	131		18		—
24	SCT3030KLHR	N			72	339	30	131		18		YES
25	SCT3040KL	N			55	262	40	107		18		—
26	SCT3040KLHR	N			55	262	40	107		18		YES
27	SCT3080KL	N			31	165	80	60		18		—
28	SCT3080KLHR	N	31		165	80	60	18	YES			
29	SCT3105KL	N	24		134	105	51	18	—			
30	SCT3105KLHR	N	24		134	105	51	18	YES			
31	SCT3160KL	N	17		103	160	42	18	—			
32	SCT3030AR	N	650		70	262	30	104	18	TO-247-4L <C15>		—
33	<i>New</i> SCT3030ARHR	N		70	262	30	104	18	YES			
34	SCT3060AR	N		39	165	60	58	18	—			
35	<i>New</i> SCT3060ARHR	N		39	165	60	58	18	YES			
36	SCT3080AR	N		30	134	80	48	18	—			
37	<i>New</i> SCT3080ARHR	N		30	134	80	48	18	YES			
38	SCT3040KR	N	1,200	55	262	40	107	18	TO-263-7L	—		
39	<i>New</i> SCT3040KRHR	N		55	262	40	107	18		YES		
40	SCT3080KR	N		31	165	80	60	18		—		
41	<i>New</i> SCT3080KRHR	N		31	165	80	60	18		YES		
42	SCT3105KR	N		24	134	105	51	18		—		
43	<i>New</i> SCT3105KRHR	N	24	134	105	51	18	YES				
44	SCT3030AW7	N	650	70	267	30	104	18	TO-263-7L	—		
45	SCT3060AW7	N		38	159	60	58	18		—		
46	SCT3080AW7	N		29	125	80	48	18		—		
47	SCT3120AW7	N	21	100	120	38	18	—				
48	SCT3040KW7	N	1,200	56	267	40	107	18	TO-263-7L	—		
49	SCT3080KW7	N		30	159	80	60	18		—		
50	SCT3105KW7	N		23	125	105	51	18		—		
51	SCT3160KW7	N		17	100	160	42	18		—		

Note: Package is JEDEC code. (): ROHM Package. < > is Packing code.

4th Generation (Trench type)											
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)			
52	New SCT4013DE	N	750	105	312	13	170	15 to 18	TO-247 (TO-247N)	—	
53	New SCT4026DE	N		56	176	26	94	15 to 18		—	
54	New SCT4045DE	N		34	115	45	63	15 to 18		—	
55	New SCT4018KE	N	1,200	81	312	18	170	15 to 18		—	
56	New SCT4036KE	N		43	176	36	91	15 to 18		—	
57	New SCT4062KE	N		26	115	62	64	15 to 18		—	
58	New SCT4013DR	N	750	105	312	13	170	15 to 18	TO-247-4L <C15>	—	
59	New SCT4026DR	N		56	176	26	94	15 to 18		—	
60	New SCT4045DR	N		34	115	45	63	15 to 18		—	
61	New SCT4018KR	N	1,200	81	312	18	170	15 to 18		—	
62	New SCT4036KR	N		43	176	36	91	15 to 18		—	
63	New SCT4062KR	N		26	115	62	64	15 to 18		—	
64	New SCT4013DW7	N	750	98	267	13	170	15 to 18	TO-263-7L	—	
65	New SCT4026DW7	N		51	150	26	94	15 to 18		—	
66	New SCT4045DW7	N		31	93	45	63	15 to 18		—	
67	New SCT4018KW7	N	1,200	75	267	18	170	15 to 18		—	
68	New SCT4036KW7	N		40	150	36	91	15 to 18		—	
69	New SCT4062KW7	N		24	93	62	64	15 to 18		—	
70	New SCT4026DEHR	N	750	56	176	26	94	15 to 18	TO-247 (TO-247N)	YES	
71	New SCT4045DEHR	N		34	115	45	63	15 to 18		YES	
72	New SCT4036KEHR	N	1,200	43	176	36	91	15 to 18		YES	
73	New SCT4062KEHR	N		26	115	62	64	15 to 18	YES		
74	New SCT4026DRHR	N	750	56	176	26	94	15 to 18	TO-247-4L <C15>	YES	
75	New SCT4045DRHR	N		34	115	45	63	15 to 18		YES	
76	New SCT4036KRHR	N	1,200	43	176	36	91	15 to 18		YES	
77	New SCT4062KRHR	N		26	115	62	64	15 to 18		YES	
78	New SCT4026DW7HR	N	750	51	150	26	94	15 to 18		TO-263-7L	YES
79	New SCT4045DW7HR	N		31	93	45	63	15 to 18			YES
80	New SCT4062KW7HR	N	1,200	24	93	62	64	15 to 18	YES		

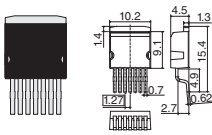
Note: Package is JEDEC code. (): ROHM Package. < > is Packing code.

SiC MOSFETs

●Dimensions (Unit: mm)

Surface Mounted type

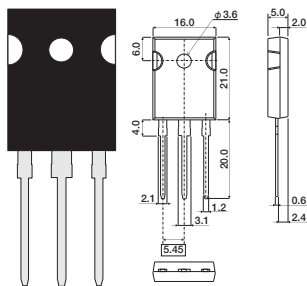
TO-263-7L



Each lead has same dimensions

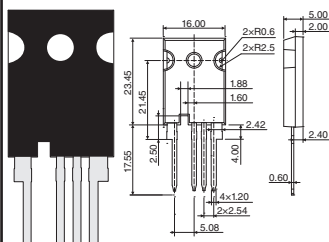
Leaded type

TO-247 (TO-247N)



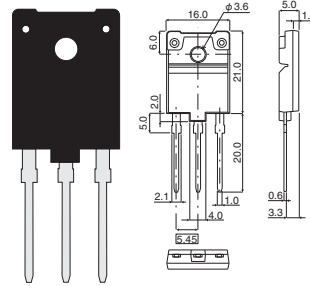
Each lead has same dimensions

TO-247-4L <C15>



Each lead has same dimensions

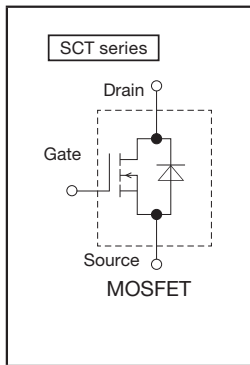
TO-3PFM



Each lead has same dimensions

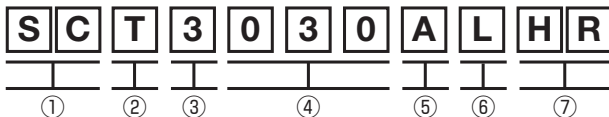
Note: Package is JEDEC code. (): ROHM Package. < > is Packing code.

●Internal Circuit



●Part No. Explanation

●MOSFET Part No. Explanation



- ① SiC Discrete Device
- ② T → MOSFET
- ③ Generation
- ④ ON-resistance[mΩ]
080=80mΩ
H12=1.2Ω
- ⑤ Rated Voltage A → 650V
D → 750V
K → 1,200V
N → 1,700V
- ⑥ Package E, L → TO-247 (TO-247N)
Z → TO-3PFM
R → TO-247-4L
W7 → TO-263-7L
- ⑦ Automotive Grade

●Packing Specifications

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

Note: Package is JEDEC code. (): ROHM Package.