

By Category PDF

Category IGBT

Power Devices

IGBT

Field Stop Trench IGBT — 137

Ignition IGBT — 141

Field Stop Trench IGBT Bare Die — 142

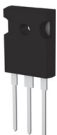
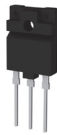
IGBT

Field Stop Trench IGBT 	P.137	Ignition IGBT 	P.141
Field Stop Trench IGBT Bare Die 	P.142		

 Click on the icon to access the product page on ROHM's website. Please check the website for the latest updates.

Field Stop Trench IGBT

●Quick Reference for Field Stop Trench IGBT Standard type

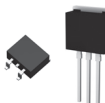
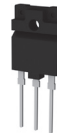
Series	V _{CE} (V)	I _C (A) T _C = 100°C	Package							
										
			TO-247N/TO-247GE				TO-3PFM			
			IGBT Single		Built-in Diode*		IGBT Single		Built-in FRD	
RGTH series (High speed switching)	650	20	RGTH40TS65	13	RGTH40TS65D	46	RGTH40TK65	22	RGTH40TK65D	63
		25	RGTH50TS65	14	RGTH50TS65D	47	RGTH50TK65	23	RGTH50TK65D	64
		30	RGTH60TS65	15	RGTH60TS65D	48	RGTH60TK65	24	RGTH60TK65D	65
		40	RGTH80TS65	16	RGTH80TS65D	49	RGTH80TK65	25	RGTH80TK65D	66
		50	RGTH00TS65	17	RGTH00TS65D	50	RGTH00TK65	26	RGTH00TK65D	67
RGWS series (High speed SW, cost effective)	650	30	New RGWS60TS65	18	New RGWS60TS65D	51				
		40	New RGWS80TS65	19	New RGWS80TS65D	52				
		50	New RGWS00TS65	20	New RGWS00TS65D	53				
		60	New RGWSX2TS65	21	New RGWSX2TS65D	54				
RGW series (Ultra High speed switching)	650	20	RGW40TS65	5	RGW40TS65D	55	RGW40TK65	27	RGW40TK65D	68
		25	RGW50TS65	6	RGW50TS65D	56	RGW50TK65	28	RGW50TK65D	69
		30	RGW60TS65HR RGW60TS65	1 7	RGW60TS65CHR RGW60TS65DHR RGW60TS65EHR RGW60TS65D	34 37 38 57	RGW60TK65	29	RGW60TK65D	70
		40	RGW80TS65HR RGW80TS65	2 8	RGW80TS65CHR RGW80TS65DHR RGW80TS65EHR RGW80TS65D	35 39 40 58	RGW80TK65	30	RGW80TK65D RGW80TK65E	71 72
		50	RGW00TS65HR RGW00TS65	3 9	RGW00TS65CHR RGW00TS65DHR RGW00TS65EHR RGW00TS65D	36 41 42 59	RGW00TK65	31	RGW00TK65D	73
		75	RGWX5TS65HR RGWX5TS65	4 10	RGWX5TS65DHR RGWX5TS65EHR RGWX5TS65D	43 44 60				
RGCL series (Low V _{CE(sat)})	600	30	RGCL60TS60	11	RGCL60TS60D	61	RGCL60TK60	32	RGCL60TK60D	74
		40	RGCL80TS60	12	RGCL80TS60D	62	RGCL80TK60	33	RGCL80TK60D	75
RGC series (RC-IGBT)	1,800	40			RGC80TSX8R	45				

Note1: Package is JEDEC code.

Note2: *RGW60TS65CHR, RGW80TS65CHR and RGW00TS65CHR are Built-in SiC Schottky Barrier Diode. The other products are Built-in Fast Recovery Diode.

Field Stop Trench IGBT

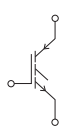
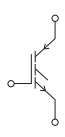
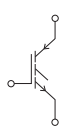
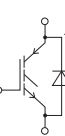
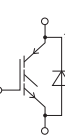
●Quick Reference for Field Stop Trench IGBT
SCSOA Guaranteed type

Series	V _{CES} (V)	I _C (A) T _C = 100°C	Package													
																
			TO-252	TO-263S (LPDS)/ TO-262	TO-263L (LPDL)		TO-220NFM	TO-247N/TO-247GE		TO-3PFM						
			Built-in FRD	Built-in FRD	IGBT Single	Built-in FRD	Built-in FRD	IGBT Single	Built-in FRD	IGBT Single	Built-in FRD					
RGTV series (tsc 2μsec Min)	650	30							RGTV60TS65	87	RGTV60TS65D	128	RGTV60TK65	92	RGTV60TK65D	138
		40							RGTV80TS65	88	RGTV80TS65D	129	RGTV80TK65	93	RGTV80TK65D	139
		50							RGTV00TS65	89	RGTV00TS65D	130	RGTV00TK65	94	RGTV00TK65D	140
		60							RGTVX2TS65	90	RGTVX2TS65D	131				
		80							RGTVX6TS65	91	RGTVX6TS65D	132				
RGT series (tsc 5μsec Min)	650	4	RGT8BM65D	95	RGT8NS65D	97		RGT8NL65D	103	RGT8TM65D	109					
		8	RGT16BM65D	96	RGT16NS65D	98		RGT16NL65D	104	RGT16TM65D	110					
		10			RGT20NS65D	99	RGT20NL65	76	RGT20NL65D	105	RGT20TM65D	111				
		15			RGT30NS65D	100		RGT30NL65D	106	RGT30TM65D	112					
		20			RGT40NS65D	101		RGT40NL65D	107	RGT40TM65D	113		RGT40TS65D	133		
		25			RGT50NS65D	102		RGT50NL65D	108	RGT50TM65D	114		RGT50TS65D	134		
		30											RGT60TS65D	135		
		40											RGT80TS65D	136		
		50											RGT00TS65D	137		
RGS series (tsc 8μsec Min)	650	30								RGS60TS65HR	77	RGS60TS65DHR	115			
		40								RGS80TS65HR	78	RGS80TS65DHR	116			
		50								RGS00TS65HR	79	RGS00TS65DHR	117			
		75								RGSX5TS65HR	80	RGSX5TS65DHR	119			
											RGSX5TS65EHR	120				
											RGSX5TS65E	121				
RGS series (tsc 10μsec Min)	1,200	15								RGS30TSX2HR	81	RGS30TSX2DHR	122			
										RGS30TSX2	82	RGS30TSX2D	123			
		25								RGS50TSX2HR	83	RGS50TSX2DHR	124			
									RGS50TSX2	84	RGS50TSX2D	125				
											RGS80TSX2HR	85	RGS80TSX2DHR	126		
											RGS80TSX2	86	RGS80TSX2D	127		

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

Field Stop Trench IGBT

Standard type

Field Stop Trench IGBT															
IGBT Single type															
No.	Part No.	V _{CE} (V)	I _C (A)		P _D (W)	V _{CE (sat)}		tsc Min (μsec)	I _{F (Diode)} (A)		V _{F (Diode)}		Package	Equivalent Circuit Diagram	Automotive Grade AEC-Q101
			Tc=25°C	Tc=100°C		Typ (V)	I _C (A)		Tc=25°C	Tc=100°C	Typ (V)	I _F (A)			
1	RGW60TS65HR	650	60	30	178	1.5	30	—	—	—	—	—	TO-247N		YES
2	RGW80TS65HR	650	78	40	214	1.5	40	—	—	—	—	—			YES
3	RGW00TS65HR	650	96	50	254	1.5	50	—	—	—	—	—			YES
4	RGWX5TS65HR	650	132	75	348	1.5	75	—	—	—	—	—			YES
5	RGW40TS65	650	40	20	136	1.5	20	—	—	—	—	—			—
6	RGW50TS65	650	50	25	156	1.5	25	—	—	—	—	—			—
7	RGW60TS65	650	60	30	178	1.5	30	—	—	—	—	—			—
8	RGW80TS65	650	78	40	214	1.5	40	—	—	—	—	—			—
9	RGW00TS65	650	96	50	254	1.5	50	—	—	—	—	—			—
10	RGWX5TS65	650	132	75	348	1.5	75	—	—	—	—	—			—
11	RGCL60TS60	600	48	30	111	1.4	30	—	—	—	—	—	TO-247GE		—
12	RGCL80TS60	600	65	40	148	1.4	40	—	—	—	—	—			—
13	RGTH40TS65	650	40	20	144	1.6	20	—	—	—	—	—			—
14	RGTH50TS65	650	50	25	174	1.6	25	—	—	—	—	—			—
15	RGTH60TS65	650	58	30	194	1.6	30	—	—	—	—	—			—
16	RGTH80TS65	650	70	40	234	1.6	40	—	—	—	—	—			—
17	RGTH00TS65	650	85	50	277	1.6	50	—	—	—	—	—			—
18	New RGWS60TS65	650	51	32	156	1.6	30	—	—	—	—	—			—
19	New RGWS80TS65	650	71	43	202	1.6	40	—	—	—	—	—			—
20	New RGWS00TS65	650	88	54	245	1.6	50	—	—	—	—	—			—
21	New RGWSX2TS65	650	104	64	288	1.6	60	—	—	—	—	—	TO-3PFM		—
22	RGTH40TK65	650	23	14	56	1.6	20	—	—	—	—	—			—
23	RGTH50TK65	650	26	16	59	1.6	25	—	—	—	—	—			—
24	RGTH60TK65	650	28	17	61	1.6	30	—	—	—	—	—			—
25	RGTH80TK65	650	31	19	66	1.6	40	—	—	—	—	—			—
26	RGTH00TK65	650	35	21	72	1.6	50	—	—	—	—	—			—
27	RGW40TK65	650	27	16	61	1.5	20	—	—	—	—	—			—
28	RGW50TK65	650	30	18	67	1.5	25	—	—	—	—	—			—
29	RGW60TK65	650	33	20	72	1.5	30	—	—	—	—	—			—
30	RGW80TK65	650	39	23	81	1.5	40	—	—	—	—	—			—
31	RGW00TK65	650	45	26	89	1.5	50	—	—	—	—	—			—
32	RGCL60TK60	600	30	18	54	1.4	30	—	—	—	—	—			—
33	RGCL80TK60	600	35	21	57	1.4	40	—	—	—	—	—			—
Built-in SiC Schottky Barrier Diode type															
No.	Part No.	V _{CE} (V)	I _C (A)		P _D (W)	V _{CE (sat)}		tsc Min (μsec)	I _{F (Diode)} (A)		V _{F (Diode)}		Package	Equivalent Circuit Diagram	Automotive Grade AEC-Q101
			Tc=25°C	Tc=100°C		Typ (V)	I _C (A)		Tc=25°C	Tc=100°C	Typ (V)	I _F (A)			
34	RGW60TS65CHR	650	64	39	178	1.5	30	—	39	25	1.35	20	TO-247N		YES
35	RGW80TS65CHR	650	81	48	214	1.5	40	—	39	25	1.35	20			YES
36	RGW00TS65CHR	650	96	58	254	1.5	50	—	39	25	1.35	20			YES
Built-in Fast Recovery Diode type															
No.	Part No.	V _{CE} (V)	I _C (A)		P _D (W)	V _{CE (sat)}		tsc Min (μsec)	I _{F (Diode)} (A)		V _{F (Diode)}		Package	Equivalent Circuit Diagram	Automotive Grade AEC-Q101
			Tc=25°C	Tc=100°C		Typ (V)	I _C (A)		Tc=25°C	Tc=100°C	Typ (V)	I _F (A)			
37	RGW60TS65DHR	650	60	30	178	1.5	30	—	40	20	1.45	20	TO-247N		YES
38	RGW60TS65EHR	650	60	30	178	1.5	30	—	56	33	1.45	30			YES
39	RGW80TS65DHR	650	78	40	214	1.5	40	—	40	20	1.45	20			YES
40	RGW80TS65EHR	650	78	40	214	1.5	40	—	73	43	1.45	40			YES
41	RGW00TS65DHR	650	96	50	254	1.5	50	—	56	30	1.45	30			YES
42	RGW00TS65EHR	650	96	50	254	1.5	50	—	84	50	1.45	50			YES
43	RGWX5TS65DHR	650	132	75	348	1.5	75	—	73	43	1.45	40			YES
44	RGWX5TS65EHR	650	132	75	348	1.5	75	—	127	80	1.45	75			YES
45	RGCL80TSX8R	1,800	80	40	535	2.2	40	—	80	40	1.80	40			—
46	RGTH40TS65D	650	40	20	144	1.6	20	—	35	20	1.45	20	TO-247GE		—
47	RGTH50TS65D	650	50	25	174	1.6	25	—	35	20	1.45	20			—
48	RGTH60TS65D	650	58	30	194	1.6	30	—	40	20	1.35	20			—
49	RGTH80TS65D	650	70	40	234	1.6	40	—	40	20	1.35	20			—
50	RGTH00TS65D	650	85	50	277	1.6	50	—	50	30	1.45	30			—
51	New RGWS60TS65D	650	51	32	156	1.6	30	—	23	13	1.45	10			—
52	New RGWS80TS65D	650	71	43	202	1.6	40	—	23	13	1.45	10			—
53	New RGWS00TS65D	650	88	54	245	1.6	50	—	23	13	1.45	10			—
54	New RGWSX2TS65D	650	104	64	288	1.6	60	—	23	13	1.45	10			—
55	RGW40TS65D	650	40	20	136	1.5	20	—	40	20	1.45	20			—
56	RGW50TS65D	650	50	25	156	1.5	25	—	40	20	1.45	20			—
57	RGW60TS65D	650	60	30	178	1.5	30	—	40	20	1.45	20			—
58	RGW80TS65D	650	78	40	214	1.5	40	—	40	20	1.45	20			—
59	RGW00TS65D	650	96	50	254	1.5	50	—	56	30	1.45	30			—
60	RGWX5TS65D	650	132	75	348	1.5	75	—	73	40	1.45	40			—
61	RGCL60TS60D	600	48	30	111	1.4	30	—	35	20	1.45	20	TO-3PFM		—
62	RGCL80TS60D	600	65	40	148	1.4	40	—	35	20	1.45	20			—
63	RGTH40TK65D	650	23	14	56	1.6	20	—	26	15	1.45	20			—
64	RGTH50TK65D	650	26	16	59	1.6	25	—	26	15	1.45	20			—
65	RGTH60TK65D	650	28	17	61	1.6	30	—	28	16	1.35	20			—
66	RGTH80TK65D	650	31	19	66	1.6	40	—	28	16	1.35	20			—
67	RGTH00TK65D	650	35	21	72	1.6	50	—	34	19	1.45	30			—
68	RGW40TK65D	650	27	16	61	1.5	20	—	27	16	1.45	20			—
69	RGW50TK65D	650	30	18	67	1.5	25	—	27	16	1.45	20			—
70	RGW60TK65D	650	33	20	72	1.5	30	—	27	16	1.45	20			—
71	RGW80TK65D	650	39	23	81	1.5	40	—	27	16	1.45	20			—
72	RGW80TK65E	650	39	23	81	1.5	40	—	46	26	1.45	50			—
73	RGW00TK65D	650	45	26	89	1.5	50	—	34	19	1.45	30			—
74	RGCL60TK60D	600	30	18	54	1.4	30	—	26	15	1.45	20			—
75	RGCL80TK60D	600	35	21	57	1.4	40	—	26	15	1.45	20			—

Note: Package is JEDEC code.

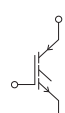
*1 Built-in SiC Schottky Barrier Diode.
*2 Built-in Fast Recovery Diode.

Field Stop Trench IGBT

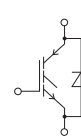
SCSOA Guaranteed type

Field Stop Trench IGBT

IGBT Single type

No.	Part No.	V _{CES} (V)	I _C (A)		P _D (W)	V _{CE (sat)}		t _{sc} Min (μsec)	I _F (Diode) (A)		V _F (Diode)		Package	Equivalent Circuit Diagram	Automotive Grade AEC-Q101
			Tc=25°C	Tc=100°C		Typ (V)	I _C (A)		Tc=25°C	Tc=100°C	Typ (V)	I _F (A)			
76	RGT20NL65	650	20	10	106	1.65	10	5	—	—	—	—	TO-263L (LPDL)		—
77	RGS60TS65HR	650	56	30	223	1.65	30	8	—	—	—	—	TO-247N		YES
78	RGS80TS65HR		73	40	272	1.65	40	8	—	—	—	—			YES
79	RGS00TS65HR		88	50	326	1.65	50	8	—	—	—	—			YES
80	RGSX5TS65HR		114	75	404	1.70	75	8	—	—	—	—			YES
81	RGS30TSX2HR		30	15	267	1.70	15	10	—	—	—	—			YES
82	RGS30TSX2		30	15	267	1.70	15	10	—	—	—	—			—
83	RGS50TSX2HR		50	25	395	1.70	25	10	—	—	—	—			YES
84	RGS50TSX2		50	25	395	1.70	25	10	—	—	—	—			—
85	RGS80TSX2HR		80	40	555	1.70	40	10	—	—	—	—			YES
86	RGS80TSX2		80	40	555	1.70	40	10	—	—	—	—			—
87	RGTV60TS65	650	60	30	194	1.50	30	2	—	—	—	—	TO-247GE		—
88	RGTV80TS65		78	40	234	1.50	40	2	—	—	—	—			—
89	RGTV00TS65		95	50	276	1.50	50	2	—	—	—	—			—
90	RGTVX2TS65		111	60	319	1.50	60	2	—	—	—	—			—
91	RGTVX6TS65		144	80	404	1.50	80	2	—	—	—	—			—
92	RGTV60TK65	650	33	20	76	1.50	30	2	—	—	—	—	TO-3PFM		—
93	RGTV80TK65		39	23	85	1.50	40	2	—	—	—	—			—
94	RGTV00TK65		45	26	94	1.50	50	2	—	—	—	—			—

Built-in Fast Recovery Diode type

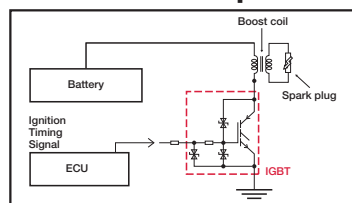
No.	Part No.	V _{CES} (V)	I _C (A)		P _D (W)	V _{CE (sat)}		tsc Min (μsec)	I _F (Diode) (A)		V _F (Diode)		Package	Equivalent Circuit Diagram	Automotive Grade AEC-Q101	
			Tc=25°C	Tc=100°C		Typ (V)	I _C (A)		Tc=25°C	Tc=100°C	Typ (V)	I _F (A)				
95	RGT8BM65D	650	8	4	62	1.65	4	5	7	4	1.45	4	TO-252		—	
96	RGT16BM65D		16	8	94	1.65	8	5	16	8	1.40	8			—	
97	RGT8NS65D	650	8	4	65	1.65	4	5	7	4	1.45	4	TO-263S (LPDS)/ TO-262		—	
98	RGT16NS65D		16	8	94	1.65	8	5	16	8	1.40	8			—	
99	RGT20NS65D		20	10	106	1.65	10	5	16	8	1.40	8			—	
100	RGT30NS65D		30	15	133	1.65	15	5	26	15	1.50	15			—	
101	RGT40NS65D		40	20	161	1.65	20	5	35	20	1.45	20			—	
102	RGT50NS65D		48	25	194	1.65	25	5	35	20	1.45	20			—	
103	RGT8NL65D	650	8	4	65	1.65	4	5	7	4	1.45	4	TO-263L (LPDL)		—	
104	RGT16NL65D		16	8	94	1.65	8	5	16	8	1.40	8			—	
105	RGT20NL65D		20	10	106	1.65	10	5	16	8	1.40	8			—	
106	RGT30NL65D		30	15	133	1.65	15	5	26	15	1.50	15			—	
107	RGT40NL65D		40	20	161	1.65	20	5	35	20	1.45	20			—	
108	RGT50NL65D		48	25	194	1.65	25	5	35	20	1.45	20			—	
109	RGT8TM65D	650	5	3	16	1.65	4	5	5	3	1.45	4	TO-220NFM		—	
110	RGT16TM65D		9	5	22	1.65	8	5	13	7	1.40	8			—	
111	RGT20TM65D		10	6	25	1.65	10	5	13	7	1.40	8			—	
112	RGT30TM65D		14	8	32	1.65	15	5	17	9	1.50	15			—	
113	RGT40TM65D		17	10	39	1.65	20	5	22	13	1.45	20			—	
114	RGT50TM65D		21	13	47	1.65	25	5	22	13	1.45	20			—	
115	RGS60TS65DHR	650	56	30	223	1.65	30	8	56	30	1.45	30	TO-247N		YES	
116	RGS80TS65DHR		73	40	272	1.65	40	8	56	30	1.45	30			YES	
117	RGS00TS65DHR		88	50	326	1.65	50	8	56	30	1.45	30			YES	
118	RGS00TS65EHR		88	50	326	1.65	50	8	84	50	1.45	50			YES	
119	RGSX5TS65DHR		114	75	404	1.70	75	8	84	50	1.45	50			YES	
120	RGSX5TS65EHR		114	75	404	1.70	75	8	127	75	1.45	75			YES	
121	RGSX5TS65E		114	75	404	1.70	75	8	127	75	1.45	75			—	
122	RGS30TSX2DHR		1,200	30	15	267	1.70	15	10	30	15	1.65			15	YES
123	RGS30TSX2D			30	15	267	1.70	15	10	30	15	1.65			15	—
124	RGS50TSX2DHR	50		25	395	1.70	25	10	50	25	1.65	25	YES			
125	RGS50TSX2D	50		25	395	1.70	25	10	50	25	1.65	25	—			
126	RGS80TSX2DHR	650	80	40	555	1.70	40	10	80	40	1.65	40	YES			
127	RGS80TSX2D		80	40	555	1.70	40	10	80	40	1.65	40	—			
128	RGTV60TS65D		60	30	194	1.50	30	2	56	30	1.45	30	—			
129	RGTV80TS65D		78	40	234	1.50	40	2	73	40	1.45	40	—			
130	RGTV00TS65D	650	95	50	276	1.50	50	2	84	50	1.45	50	TO-247GE		—	
131	RGTVX2TS65D		111	60	319	1.50	60	2	98	60	1.45	60			—	
132	RGTVX6TS65D		144	80	404	1.50	80	2	127	80	1.45	80			—	
133	RGT40TS65D		40	20	144	1.65	20	5	35	20	1.45	20			—	
134	RGT50TS65D		48	25	174	1.65	25	5	35	20	1.45	20			—	
135	RGT60TS65D		55	30	194	1.65	30	5	40	20	1.35	20			—	
136	RGT80TS65D		70	40	234	1.65	40	5	40	20	1.35	20			—	
137	RGT00TS65D		85	50	277	1.65	50	5	50	30	1.45	30			—	
138	RGTV60TK65D	650	33	20	76	1.50	30	2	34	19	1.45	30	TO-3PFM		—	
139	RGTV80TK65D		39	23	85	1.50	40	2	40	23	1.45	40			—	
140	RGTV00TK65D		45	26	94	1.50	50	2	46	26	1.45	50			—	

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

*Built-in Fast Recovery Diodes

Ignition IGBT

●Circuit Example for Ignition IGBT



Ignition IGBT									
Part No.	V _{CE} (V)	V _{GES} (V)	I _C (A)	P _D (W)	E _{as} (mJ)	V _{CE(sat)} Typ (V)	Package	Equivalent Circuit Diagram	Automotive Grade AEC-Q101
RGPZ10BM40FH	430±30	±10	20	107	250	1.6	TO-252		YES
☆ RGPZ30BM56HR	560±30	±10	30	166	300	1.4	TO-252		YES
RGPR10BM40FH	430±30	±10	20	107	250	1.6	TO-252		YES
☆ RGPR20BM36HR	360±30	±10	20	107	250	1.6	TO-252		YES
RGPR20NS43HR	430±30	±10	20	107	250	1.6	TO-263S (LPDS)		YES
RGPR20NL43HR	430±30	±10	20	107	250	1.6	TO-263L (LPDL)		YES
☆ RGPR30BM56HR	560±30	±10	30	166	300	1.4	TO-252		YES
RGPR30BM40HR	400±30	±10	30	125	300	1.6	TO-252		YES
RGPR30NS40HR	400±30	±10	30	125	300	1.6	TO-263S (LPDS)		YES
RGPR50NL45HRB	450±30	±10	45	187	500	1.6	TO-263L (LPDL)		YES

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

☆: Under Development

●Dimensions (Unit: mm)

TO-252 Each lead has same dimensions	TO-263S (LPDS) Each lead has same dimensions	TO-263L (LPDL) Each lead has same dimensions	TO-262 Each lead has same dimensions
TO-220NFM Each lead has same dimensions	TO-247N Each lead has same dimensions	TO-247GE Each lead has same dimensions	TO-3PFM Each lead has same dimensions

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

●Product No. Explanation

R	G	W	8	0	T	S	6	5	D	H	R
①	②	③	④	⑤	⑥	⑦					

- ① IGBT
- ② Series Name
- ③ I_C<T_C=100°C>
e.g. 8 → 4A
16 → 8A
30 → 15A
00 → 50A
X2 → 60A
X6 → 80A
- ④ Package
e.g. BM → TO-252
NS → TO-263S (LPDS)/
TO-262
NL → TO-263L (LPDL)
TM → TO-220NFM
TS → TO-247N/TO-247GE
TK → TO-3PFM
- ⑤ V_{CE}
e.g. 65 → 650V
- ⑥ Built-in Diode
C → Built-in SiC Schottky Barrier Diode
D/E → Built-in Fast Recovery Diode
R → Built-in Diode (RC-IGBT)
- ⑦ Automotive Grade

●Packaging type

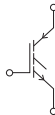
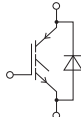
Package	Code	Packaging Style	Basic Ordering Unit (pcs)
TO-252	TL	Embossed tape	2,500
TO-263S (LPDS)	TL	Embossed tape	1,000
TO-263L (LPDL)	TL	Embossed tape	1,000
TO-262	C9	Tube	50
TO-220NFM	C9	Tube	50
TO-247N	C11	Tube	30
TO-247GE	C13	Tube	30
TO-3PFM	C11	Tube	30

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

Field Stop Trench IGBT Bare Die

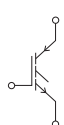
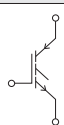
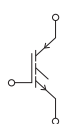
Currently, production is being transferred from the Miyazaki factory to the Shiga factory, and in the future all production will be done at the Shiga factory. We are also transitioning the wafer size from 6 inch to 8 inch. For product specifications, please refer to "Product No. Explanation" on page 145.

Standard type

Field Stop Trench IGBT Bare Die								
High speed fast SW series								
Part No.	V _{CES} (V)	I _C (Nominal) (A)	V _{CE (sat)} (Typ) (V)	V _{GE (th)} (Typ) (V)	t _{sc} (Min) (μs)	Operating Temperature (°C)	Equivalent Circuit Diagram	Chip Size (mm)
MG6306WZ	650	20	1.5	6	—	−40 to +175		3.10×3.10
MG6307WZ	650	25	1.5	6	—	−40 to +175		3.35×3.35
MG6303WZ	650	30	1.5	6	—	−40 to +175		3.60×3.60
MG6304WZ	650	40	1.5	6	—	−40 to +175		4.00×4.00
MG6305WZ	650	50	1.5	6	—	−40 to +175		4.40×4.40
MG6308WZ	650	75	1.5	6	—	−40 to +175		5.25×5.25
Low V _{CE (sat)} series								
Part No.	V _{CES} (V)	I _C (Nominal) (A)	V _{CE (sat)} (Typ) (V)	V _{GE (th)} (Typ) (V)	t _{sc} (Min) (μs)	Operating Temperature (°C)	Equivalent Circuit Diagram	Chip Size (mm)
MG7902WZ	600	30	1.4	5.5	—	−40 to +175		2.78×2.78
MG7901WZ	600	40	1.4	5.5	—	−40 to +175		3.26×3.26
Reverse Conducting series								
Part No.	V _{CES} (V)	I _C (Nominal) (A)	V _{CE (sat)} (Typ) (V)	V _{GE (th)} (Typ) (V)	t _{sc} (Min) (μs)	Operating Temperature (°C)	Equivalent Circuit Diagram	Chip Size (mm)
MG7405WZ	1,800	40	2.2	6	—	−40 to +175		8.20×6.00

SCSOA Guaranteed type

Currently, production is being transferred from the Miyazaki factory to the Shiga factory, and in the future all production will be done at the Shiga factory. We are also transitioning the wafer size from 6 inch to 8 inch. For product specifications, please refer to "Product No. Explanation" on page 145.

Field Stop Trench IGBT Bare Die								
For inverter (tsc 8-10μs) series								
Part No.	V _{CES} (V)	I _C (Nominal) (A)	V _{CE (sat)} (Typ) (V)	V _{GE (th)} (Typ) (V)	tsc (Min) (μs)	Operating Temperature (°C)	Equivalent Circuit Diagram	Chip Size (mm)
MG7107WZ	650	15	1.65	6	8	−40 to +175		3.20×3.20
MG7108WZ	650	20	1.65	6	8	−40 to +175		3.50×3.50
MG7109WZ	650	25	1.65	6	8	−40 to +175		3.80×3.80
MG7104WZ	650	30	1.65	6	8	−40 to +175		4.10×4.10
MG7106WZ	650	40	1.65	6	8	−40 to +175		4.30×4.86
MG7102WZ	650	50	1.65	6	8	−40 to +175		4.30×5.92
New SG7110WN	650	75	1.7	6	8	−40 to +175		5.70×5.70
MG7110WZ	650	75	1.7	6	8	−40 to +175		5.70×5.70
MG7211WZ	1,200	15	1.7	6	10	−40 to +175		6.20×3.50
MG7210WZ	1,200	25	1.7	6	10	−40 to +175		5.79×5.79
MG7209WZ	1,200	40	1.7	6	10	−40 to +175		6.95×7.00
MG7212WZ	1,200	50	1.7	6	10	−40 to +175		8.60×7.00
MG7213WZ	1,200	75	1.7	6	10	−40 to +175		9.20×9.20
New MG7214WZ	1,200	100	1.7	6	10	−40 to +175		10.40×10.40
New MG7215WZ	1,200	150	1.7	6	10	−40 to +175		12.50×12.50
New MG7216WZ	1,200	200	1.7	6	10	−40 to +175		14.30×14.30
For inverter (tsc 5μs) series								
Part No.	V _{CES} (V)	I _C (Nominal) (A)	V _{CE (sat)} (Typ) (V)	V _{GE (th)} (Typ) (V)	tsc (Min) (μs)	Operating Temperature (°C)	Equivalent Circuit Diagram	Chip Size (mm)
New SG6610WN	650	20	1.65	6	5	−40 to +175		3.20×3.20
SG6612WN	650	50	1.65	6	5	−40 to +175		4.60×4.60
For inverter (tsc 2μs) series								
Part No.	V _{CES} (V)	I _C (Nominal) (A)	V _{CE (sat)} (Typ) (V)	V _{GE (th)} (Typ) (V)	tsc (Min) (μs)	Operating Temperature (°C)	Equivalent Circuit Diagram	Chip Size (mm)
MG6401WZ	650	30	1.5	6	2	−40 to +175		3.40×4.20
MG6404WZ	650	40	1.5	6	2	−40 to +175		4.20×4.20
MG6402WZ	650	50	1.5	6	2	−40 to +175		4.60×4.60
MG6405WZ	650	60	1.5	6	2	−40 to +175		5.00×5.00
MG6403WZ	650	80	1.5	6	2	−40 to +175		5.70×5.70

Monolithic Body Diode compatible with Field Stop Trench IGBT Bare Die

Currently, production is being transferred from the Miyazaki factory to the Shiga factory, and in the future all production will be done at the Shiga factory. We are also transitioning the wafer size from 6 inch to 8 inch. For product specifications, please refer to "Product No. Explanation" on page 145.

Monolithic Body Diode						
Fast recovery diode series						
Part No.	V_{RM} (V)	I_F (Nominal) (A)	V_F (Typ) (V)	Operating Temperature (°C)	Equivalent Circuit Diagram	Chip Size (mm)
New SH2104WN	650	20	1.45	-40 to +175		2.50×2.50
MH2104WZ	650	20	1.45	-40 to +175		2.50×2.50
MH2101WZ	650	30	1.45	-40 to +175		3.00×3.00
MH2106WZ	650	40	1.45	-40 to +175		3.40×3.40
SH2102WN	650	50	1.45	-40 to +175		3.70×3.70
MH2102WZ	650	50	1.45	-40 to +175		3.70×3.70
MH2107WZ	650	60	1.45	-40 to +175		4.00×4.00
New SH2103WN	650	80	1.45	-40 to +175		4.50×4.50
MH2103WZ	650	80	1.45	-40 to +175		4.50×4.50
MH2203WZ	1,200	15	1.65	-40 to +175		3.20×3.20
MH2201WZ	1,200	25	1.65	-40 to +175		3.80×3.80
MH2204WZ	1,200	40	1.65	-40 to +175		3.15×6.64
MH2205WZ	1,200	50	1.65	-40 to +175		4.20×6.00
MH2206WZ	1,200	75	1.65	-40 to +175		4.30×8.20
MH2207WZ	1,200	100	1.65	-40 to +175		5.00×9.00
MH2208WZ	1,200	150	1.65	-40 to +175		6.00×11.00
MH2209WZ	1,200	200	1.65	-40 to +175		6.50×13.00

●Product No. Explanation

M	G	7	2	1	4	W	Z
①	②	③	④	⑤			

- | | |
|--|---|
| ① Manufacturing plant
M: Miyazaki
S: Siga | ③ Production No. |
| ② G: IGBT Bare Die
H: Fast Recovery Diode
Bare Die | ④ Metal specifications
W: General use type |
| | ⑤ Wafer Size
Z: 6 inch
N: 8 inch |

M	H	2	1	0	4	W	Z
①	②	③	④	⑤			

- | | |
|--|---|
| ① Manufacturing plant
M: Miyazaki
S: Siga | ③ Production No. |
| ② G: IGBT Bare Die
H: Fast Recovery Diode
Bare Die | ④ Metal specifications
W: General use type |
| | ⑤ Wafer Size
Z: 6 inch
N: 8 inch |