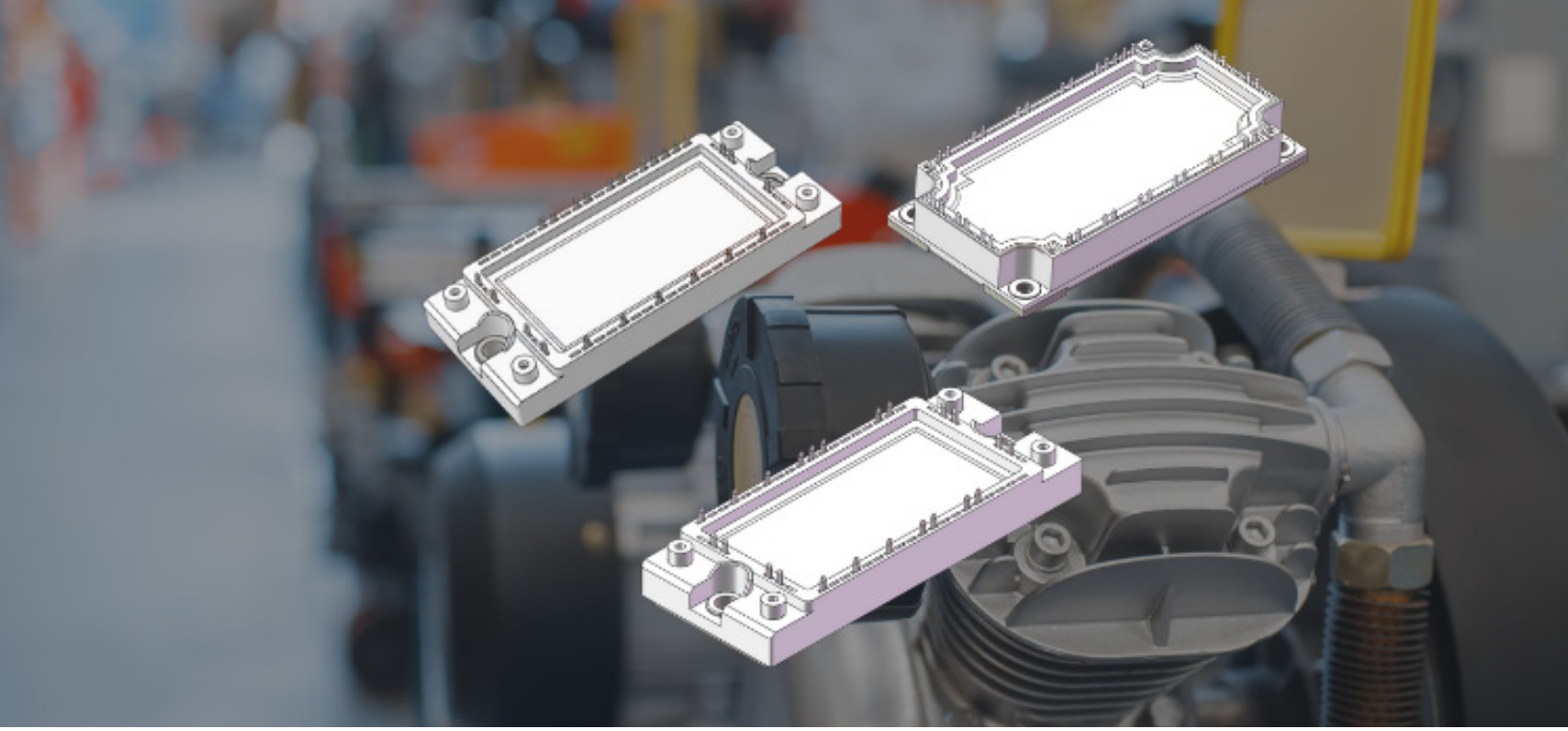


Insulated Gate Bipolar Transistor(IGBT)

Insulated gate bipolar transistors are essential for high-voltage power in various demanding applications. MCC's IGBT portfolio includes several efficient and reliable options with high current densities. Ideal for industrial, renewable energy, and automotive devices and systems, our solutions are proven to perform.

IGBT

PRODUCT

IGBT

APPLICATION

IGBT

Automotive Grade

Automotive IGBT Discrete

Part Number	Package	Number of Functions	Collector-Emitter Voltage	DC Collector Current @ Tc=100°C	Collector-Emitter Saturation Voltage	Turn-On Energyy@Tj=25°C	Turn-Off Energyy@Tj=25°C	Power Rating	Operating Junction Temperature
			V_{CE} (V)	I_C (A)	V_{CE}(sat) (V)	E_{on}(mj)	E_{off}(mj)	P_D(W)	T_j(°C) Max
MIS80N120NT1YHE3	STO-220	Single	1200	80	1.65	7.5	4.6	735	150
MIW40N120AT1YHE3	TO-247AB	Single	1200	40	1.95	3.92	2.53	319	175
MIW40N120FLAHE3	TO-247AB	Single	1200	40	2.3	3.8	1.7	428	175
MIW80N120BT1YHE3	TO-247AB	Single	1200	80	2.3	7.8	5.5	521	150
MIW80N120NT1YHE3	TO-247AB	Single	1200	80	2.3	7.5	4.6	521	150

IGBT Discrete

Part Number	Package	Number of Functions	Collector-Emitter Voltage	DC Collector Current @ Tc=100°C	Collector-Emitter Saturation Voltage	Turn-On Energyy@Tj=25°C	Turn-Off Energyy@Tj=25°C	Power Rating	Operating Junction Temperature
			V_{CE} (V)	I_C (A)	V_{CE}(sat) (V)	E_{on}(mj)	E_{off}(mj)	P_D(W)	T_J(°C) Max
MIB10N65AT0Y	D2-PAK	Single	650	10	1.7	0.36	0.17	100	175
MIB15N65AT0Y	D2-PAK	Single	650	15	1.7	0.33	0.16	110	175
MIB20N65AT0Y	D2-PAK	Single	650	20	1.95	0.41	0.22	120	175
MIB30N65AT1Y	D2-PAK	Single	650	30	1.95	1.37	0.63	136	175
MIF10N65AT0Y	ITO-220AB	Single	650	8	1.7	0.36	0.17	31	175
MIF15N65AT0Y	ITO-220AB	Single	650	10	1.7	0.33	0.16	34	175
MIF15N65AT1Y	ITO-220AB	Single	650	15	2.15	0.33	0.22	45	175
MIF20N65AT0Y	ITO-220AB	Single	650	15	1.95	0.41	0.22	37	175
MIF20N65AT1Y	ITO-220AB	Single	650	20	1.9	0.36	0.25	55	175
MIP10N65AT0Y	TO-220AB	Single	650	10	1.7	0.36	0.17	100	175
MIP15N65AT0Y	TO-220AB	Single	650	15	1.7	0.33	0.16	110	175
MIP20N65AT0Y	TO-220AB	Single	650	20	1.95	0.41	0.22	120	175
MIZ75N65AH2Y	TO-247-4	Single	650	80	2.1	2.61	0.76	428	175
MIW30N65AH1Y	TO-247AB	Single	650	30	2.4	1.14	0.73	187	175
MIW30N65AT2Y	TO-247AB	Single	650	30	1.75	0.91	0.72	187	175
MIW30N65FA	TO-247AB	Single	650	30	2.4	1.35	0.45	187	175
MIW30N65FLA	TO-247AB	Single	650	30	2.2	1.5	0.8	187	175
MIW40N65AH2Y	TO-247AB	Single	650	40	1.95	1.94	0.51	214	175
MIW40N65AT0Y	TO-247AB	Single	650	40	1.85	1.31	0.61	187	175
MIW40N65AT2Y	TO-247AB	Single	650	40	1.9	1.34	0.91	187	175
MIW40N65RA	TO-247AB	Single	650	40	2.4	1.6	0.88	306	175
MIW50N65AH2Y	TO-247AB	Single	650	50	1.9	2.05	0.36	283	175
MIW50N65AT1Y	TO-247AB	Single	650	50	1.8	3.18	1.25	306	175
MIW50N65AS2Y	TO-247AB	Single	650	60	1.7	1.89	0.55	283	175
MIW50N65F	TO-247AB	Single	650	60	1.95	1.62	0.85	326	175
MIW60N65AS2Y	TO-247AB	Single	650	60	1.8	2.47	0.67	283	175
MIW75N65AH2Y	TO-247AB	Single	650	80	2.1	3.26	0.84	428	175
MIW75N65AS2Y	TO-247AB	Single	650	80	1.75	3.12	1.11	428	175
MIW100N65AS1Y	TO-247AB	Single	650	100	1.8	4	1.1	535	175
MIW100N65AT1Y	TO-247AB	Single	650	100	1.7	4	2.4	535	175
MIW15N120FA	TO-247AB	Single	1200	15	2.3	2.2	1.3	200	175
MIW25N120FA	TO-247AB	Single	1200	25	2.3	2.8	2.4	326	175
MIW40N120AH2Y	TO-247AB	Single	1200	40	1.95	2.29	1.12	288	175
MIW40N120FLA	TO-247AB	Single	1200	40	2.3	3.8	1.7	428	175
MIW50N120AT1Y	TO-247AB	Single	1200	50	1.85	4.02	2.66	468	175
MIWP75N120AT1Y	TO-247Plus	Single	1200	75	1.9	8.5	5.1	645	175
MIWP75N120DH1Y	TO-247Plus	Single	1200	75	2.5	7.7	2.2	600	175

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※Pre-Release※

IGBT Discrete

Part Number	Package	Number of Functions	Collector-Emitter Voltage	DC Collector Current @ Tc=100°C	Collector-Emitter Saturation Voltage	Turn-On Energyy@Tj=25°C	Turn-Off Energyy@Tj=25°C	Power Rating	Operating Junction Temperature
			V_{CE} (V)	I_C (A)	V_{CE}(sat) (V)	E_{on}(mj)	E_{off}(mj)	P_D(W)	T_j(°C) Max
MIB10N65AT1Y	D2-PAK	Single	650	10	2.15	0.19	0.17	115	175
MIF10N65AT1Y	ITO-220AB	Single	650	10	2.15	0.19	0.17	35	175
MIP10N65AT1Y	TO-220AB	Single	650	10	2.15	0.19	0.17	115	175
MIP15N65AT1Y	TO-220AB	Single	650	15	2.15	0.33	0.22	150	175
MIP20N65AT1Y	TO-220AB	Single	650	20	1.9	0.36	0.25	187	175
MIZ50N65AH2Y	TO-247-4	Single	650	50	1.9	2.05	0.36	283	175
MIZ50N65AS2Y	TO-247-4	Single	650	60	1.7	1.51	0.49	283	175
MIZ75N65AS2Y	TO-247-4	Single	650	80	1.75	2.49	0.99	428	175
MIZ75N65CH2Y	TO-247-4	Single	650	80	2.1	2.61	0.76	428	175
MIZ75N65CS2Y	TO-247-4	Single	650	80	1.75	2.49	0.99	428	175
MIW10N65AT1Y	TO-247AB	Single	650	10	2.15	0.19	0.17	115	175
MIW15N65AT1Y	TO-247AB	Single	650	15	2.15	0.33	0.22	150	175
MIW20N65AT0Y	TO-247AB	Single	650	20	1.95	0.41	0.22	120	175
MIW20N65AT1Y	TO-247AB	Single	650	20	1.9	0.36	0.25	176	175
MIW40N65AS1Y	TO-247AB	Single	650	40	2.1	2.11	0.82	187	175
MIW40N65NT0Y	TO-247AB	Single	650	40	1.95	1.27	0.46	187	175
MIW50N65AT2Y	TO-247AB	Single	650	50	1.75	2.27	1.09	333	175
MIW60N65AH2Y	TO-247AB	Single	650	60	2	2.64	0.45	283	175
MIW60N65BH0Y	TO-247AB	Single	650	60	2.15	1.81	0.73	267	175
MIW75N65CS2Y	TO-247AB	Single	650	75	1.75	2.18	3.29	428	175
MIW75N65AH2YS	TO-247AB	Single	650	80	2.1	3.26	0.84	428	175
MIW75N65AS2YS	TO-247AB	Single	650	80	1.75	3.12	1.11	428	175
MIW75N65AT0Y	TO-247AB	Single	650	80	1.9	3.51	1.43	469	175
MIW75N65AT1YA	TO-247AB	Single	650	80	2	3.7	1.63	330	175
MIWP100N65AS1Y	TO-247Plus	Single	650	100	1.7	4	1.1	428	175
MIWP100N65AT1Y	TO-247Plus	Single	650	100	1.6	4	2.4	428	175
MIWP160N65AS2Y	TO-247Plus	Single	650	160	1.85	5.75	3.69	714	175
MIBB15N120AT1Y	T2PAK	Single	1200	15	2.05	0.8	1.1	153	175
MIBB25N120AT1Y	T2PAK	Single	1200	25	2.1	1.8	1.7	226	175
MIW15N120AT1Y	TO-247AB	Single	1200	15	2.05	0.8	1.1	153	175
MIW25N120AT1Y	TO-247AB	Single	1200	25	2.1	1.8	1.7	226	175
MIW40N120AH0Y	TO-247AB	Single	1200	40	2.3	4.6	1.33	500	175
MIW40N120AT1Y1	TO-247AB	Single	1200	40	1.95	3.92	2.53	320	175
MIWP75N120AH0Y	TO-247Plus	Single	1200	75	2.4	9.5	3.2	750	175
MIWP75N120AH1YA	TO-247Plus	Single	1200	75	1.9	5.25	1.87	535	175
MIWP75N120AT0Y	TO-247Plus	Single	1200	75	2.2	9.9	3.9	750	175
MIWP140N120AH1Y	TO-247Plus	Single	1200	140	2.05	13.3	4.9	937	175
MIL50N120AT0Y	TO-264	Single	1200	50	2.1	7.31	2.93	500	175
MIL75N120AT1Y	TO-264	Single	1200	75	1.9	12.6	6.9	555	175

IGBT Modules

Part Number	Package	Number of Functions	Collector-Emitter Voltage	DC Collector Current @ Tc=100°C	Collector-Emitter Saturation Voltage	Turn-On Energyy@Tj=25°C	Turn-Off Energyy@Tj=25°C	Power Rating	Operating Junction Temperature
			V_{CES}(V)	I_C (A)	V_{CE}(sat) (V)	E_{on}(mj)	E_{off}(mj)	P_{tot}(W)	T_j(°C) Max
MIF400R065C2TL	C2(62mm)	Half Bridge	650	400	1.7	6.1	8.5	1250	175
MIF75R12C1PF	C1(34mm)	Half Bridge	1200	75	3	13.4	5.8	657	150
MIF75R12C1TL	C1(34mm)	Half Bridge	1200	75	1.85	9.7	7	530	175
MIF100R12C1PF	C1(34mm)	Half Bridge	1200	100	3	15.8	5.9	675	150
MIF100R12C1TF	C1(34mm)	Half Bridge	1200	100	2	8.12	7.63	789	175
MIF100R12C1TL	C1(34mm)	Half Bridge	1200	100	1.85	11.65	10.9	785	175
MIF150R12C1TL	C1(34mm)	Half Bridge	1200	150	1.85	19.7	16.5	968	175
MIF150R12C2TL	C2(62mm)	Half Bridge	1200	150	1.85	18	7.9	833	175
MIF200R12C2TF	C2(62mm)	Half Bridge	1200	200	2.1	33.4	12.3	1250	175
MIF200R12C2TL	C2(62mm)	Half Bridge	1200	200	1.85	21.1	12.9	1250	175
MIF300R12C2TL	C2(62mm)	Half Bridge	1200	300	1.85	37.1	20.6	1600	175
MIF450R12C2TL	C2(62mm)	Half Bridge	1200	450	1.9	23.2	28.5	2307	175
MIF600R12C2TL	C2(62mm)	Half Bridge	1200	600	2.5	90	46.6	3480	175
MIP15R12E1TN	E1	PIM three phase input rectifier	1200	15	1.85	1.42	0.78	142	175
MIP40R12E1TN	E1	PIM three phase input rectifier	1200	40	1.9	3.97	2.64	227	175
MIP35R12E1AML	E1A	PIM three phase input rectifier	1200	35	1.7	2.2	2.2	157	175
MIP35R12E1ATN	E1A	PIM three phase input rectifier	1200	35	1.85	3.48	1.65	227	175
MIP50R12E1AML	E1A	PIM three phase input rectifier	1200	50	1.7	5.5	3.4	240	175
MIP50R12E1ATN	E1A	PIM three phase input rectifier	1200	50	1.9	5.92	3.39	288	175
MIP75R12E1AML	E1A	PIM three phase input rectifier	1200	75	1.6	7.89	6.26	319	175
MIP50R12E2TN	E2	PIM three phase input rectifier	1200	50	1.9	3.5	2.43	288	175
MIP75R12E2ML	E2	PIM three phase input rectifier	1200	75	1.6	3.4	5.8	319	175
MIP75R12E2TN	E2	PIM three phase input rectifier	1200	75	1.95	4.71	5.45	470	175
MIP100R12E2TN	E2	PIM three phase input rectifier	1200	100	1.85	9.2	5.8	555	175
MIP50R12E2ATN	E2A	PIM three phase input rectifier	1200	50	1.9	5.92	3.39	288	175
MIP75R12E2ATN	E2A	PIM three phase input rectifier	1200	75	1.95	4.71	5.45	470	175
MIF225R12E3TL	E3	Half Bridge	1200	225	6.4	22.6	9.1	1540	175
MIF300R12E3TL	E3	Half Bridge	1200	300	6.4	26.3	21.6	1850	175
MIF450R12E3TL	E3	Half Bridge	1200	450	1.85	52.1	38.2	2340	175
MIF600R12E3TL	E3	Half Bridge	1200	600	1.5	20	90	3260	175
MIUZ100R12GJTL	GJ(SOT-227)	Single w/o FWD	1200	100	2.25	13.5	7	535	175
MIP15R12P2STN	P2S	PIM three phase input rectifier	1200	15	1.9	1.98	0.99	155	175
MIP25R12P2SML	P2S	PIM three phase input rectifier	1200	25	1.6	1.42	1.72	150	175
MITF35R12P2STL	P2S	Sixpack	1200	35	2.05	2.05	2.21	230	175
MIP35R12P3STN	P3S	PIM three phase input rectifier	1200	35	1.82	4.45	1.95	150	175

IGBT

※Pre-Release※

IGBT Modules

Part Number	Package	Number of Functions	Collector-Emitter Voltage	DC Collector Current @ Tc=100°C	Collector-Emitter Saturation Voltage	Turn-On Energyy@Tj=25°C	Turn-Off Energyy@Tj=25°C	Power Rating	Operating Junction Temperature
			V_{CES}(V)	I_C (A)	V_{CE}(sat) (V)	E_{on}(mj)	E_{off}(mj)	P_{tot}(W)	T_j(°C) Max
MIF100R65C1TL	C1(34mm)	Half Bridge	650	100	1.45	4.4	2.6	416	175
MIF150R65C1TL	C1(34mm)	Half Bridge	650	150	1.8	1.05	3.72	468	175
MIF300R65C2TL	C2(62mm)	Half Bridge	650	300	2.1	3.5	7.4	833	175
MIF600R65C2TL	C2(62mm)	Half Bridge	650	600	1.55	29.1	20.5	2500	175
MIF50R12C1TF	C1(34mm)	Half Bridge	1200	50	2.1	1.56	1.82	288	175
MIF50R12C1TL	C1(34mm)	Half Bridge	1200	50	1.95	11	3.1	480	175
MIF75R12C1TF	C1(34mm)	Half Bridge	1200	75	2.1	6.4	3	530	175
MIF150R12C2TF	C2(62mm)	Half Bridge	1200	150	2.6	16.5	6.5	785	175
MIF200R12C2LE	C2(62mm)	Half Bridge	1200	200	3.1	32.8	8.5	1700	175
MIF300R12C2LE	C2(62mm)	Half Bridge	1200	300	3.3	23.2	8.5	1388	175
MIF300R12C2TF	C2(62mm)	Half Bridge	1200	300	2.6	29.4	16.8	1700	175
MIP10R12E1TN	E1	PIM three phase input rectifier	1200	10	2.6	1.16	0.78	120	175
MIP25R12E1ML	E1	PIM three phase input rectifier	1200	25	1.6	1.83	1.65	154	175
MIP40R12E1ML	E1	PIM three phase input rectifier	1200	40	1.7	2.3	2.2	157	175
MIP50R12E2ML	E2	PIM three phase input rectifier	1200	50	1.7	5.5	3.4	272	175
MIP100R12E2ML	E2	PIM three phase input rectifier	1200	100	1.6	5.96	8.09	405	175
MIP150R12E2ML	E2	PIM three phase input rectifier	1200	150	1.67	14.3	10.8	535	175
MIP150R12E2TN	E2	PIM three phase input rectifier	1200	150	2.5	13.2	12.7	785	175
MIP50R12E2AML	E2A	PIM three phase input rectifier	1200	50	1.7	5.8	3.5	250	175
MIP7512E2AML	E2A	PIM three phase input rectifier	1200	75	1.6	3.4	5.8	319	175
MITF200R12E2AML	E2A	Sixpack	1200	200	1.7	17.2	15.6	652	175
MITB160R16E1TL	E1	Chopper (Brake)	1600	160	1.85	9.2	5.8	515	175
MIRB150R16E1AML	E1A	Chopper (Brake)	1600	150	1.5	5.96	8.09	442	175
MIRB200R16E1AML	E1A	Chopper (Brake)	1600	200	1.5	5.96	8.09	442	175
MIP50R12E2ATN	E2A	PIM three phase input rectifier	1200	50	1.9	5.92	3.39	288	175
MIP75R12E2ATN	E2A	PIM three phase input rectifier	1200	75	1.95	4.71	5.45	470	175