

PRODUCT SELECTION GUIDE



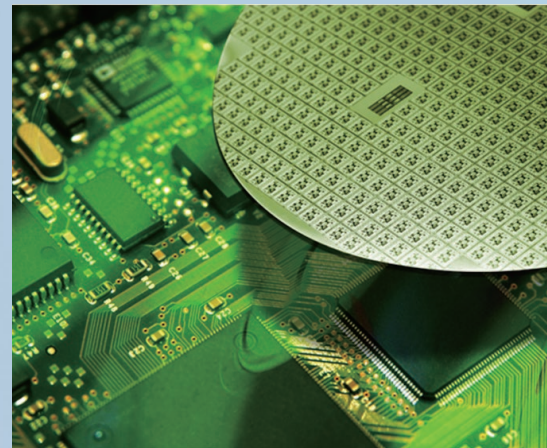
신의와 정의로 고객에게 믿음을 주는 기업
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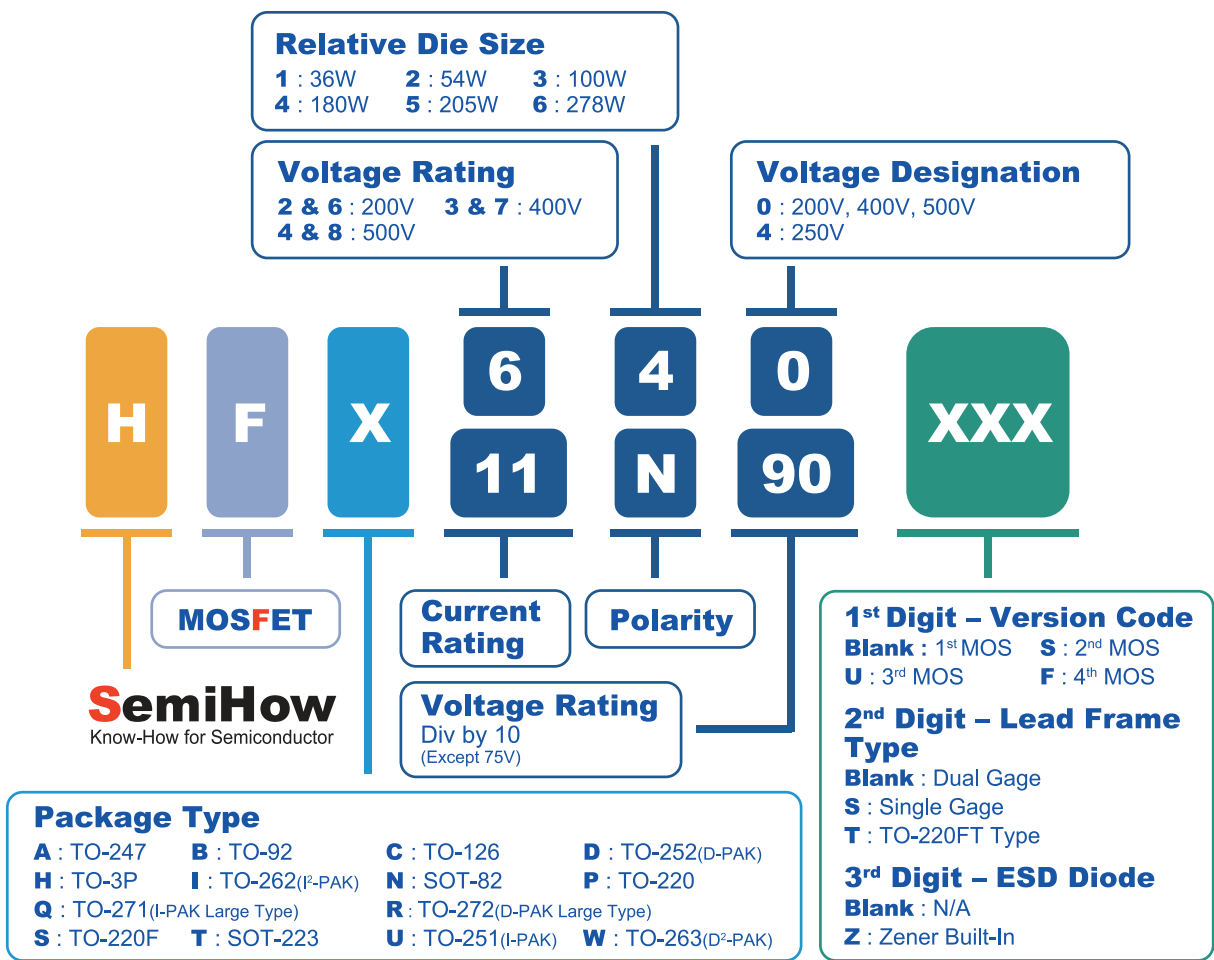
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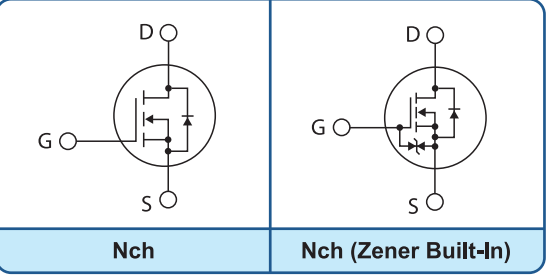
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DISCRETE

Planar MOSFET



SYMBOL



MOSFETs (60V)

Part Name	V _{DSS} [V]	I _D [A]	R _{DS(ON)} max [Ω]	P _D [W]	Q _g [nC]	E _{AS} [mJ]	Package
HFW50N06	60	50	0.022	120	40	490	D ² -PAK
HFI50N06	60	50	0.022	120	40	490	I ² -PAK
HFP50N06	60	50	0.022	120	40	490	TO-220
HFS50N06	60	30	0.022	48	40	490	TO-220F
HFW50N06GC	60	50	0.022	120	35	450	D ² -PAK
HFI50N06GC	60	50	0.022	120	35	450	I ² -PAK
HFP50N06GC	60	50	0.022	120	35	450	TO-220
HFS50N06GC	60	50	0.022	48	35	450	TO-220F

DISCRETE

MOSFETs (200V~500V)

Part Name	V _{DSS} [V]	I _D [A]	R _{DS(ON)} max [Ω]	P _D [W]	Q _g [nC]	E _{AS} [mJ]	Package
HFD630	200	7.2	0.400	46	22	160	D-PAK
HFU630	200	7.2	0.400	46	22	160	I-PAK
HFP630	200	9.0	0.400	72	22	160	TO-220
HFS630	200	9.0	0.400	38	22	160	TO-220F
HFW640	200	18	0.180	139	37	250	D ² -PAK
HFI640	200	18	0.180	139	37	250	I ² -PAK
HFP640	200	18	0.180	139	37	250	TO-220
HFS640	200	18	0.180	43	37	250	TO-220F
HFP640G	200	18	0.160	125	29	670	TO-220
HFS640G	200	18	0.160	40	29	670	TO-220F
HFD5N40	400	3.4	1.6	45	13	510	D-PAK
HFU5N40	400	3.4	1.6	45	13	510	I-PAK
HFP730	400	5.5	1.0	73	18	330	TO-220
HFS730	400	5.5	1.0	38	18	330	TO-220F
HFP730S	400	6.0	1.0	73	17	280	TO-220
HFS730S	400	6.0	1.0	38	17	280	TO-220F
HFW11N40	400	11.4	0.480	147	35	520	D ² -PAK
HFP11N40	400	11.4	0.480	147	35	520	TO-220
HFS11N40	400	11.4	0.480	50	35	520	TO-220F
HFP740	400	10.5	0.570	135	25	360	TO-220
HFS740	400	10.5	0.570	44	25	360	TO-220F
HFD4N50	500	2.6	2.7	45	13	440	D-PAK
HFU4N50	500	2.6	2.7	45	13	440	I-PAK
HFP4N50	500	3.4	2.7	70	13	440	TO-220
HFS4N50	500	3.4	2.7	28	13	440	TO-220F
HFP830	500	4.5	1.5	73	18	270	TO-220
HFS830	500	4.5	1.5	38	18	270	TO-220F
HFD5N50S	500	4.0	1.5	48	15.5	300	D-PAK
HFU5N50S	500	4.0	1.5	48	15.5	300	I-PAK
HFW5N50S	500	5.0	1.5	73	15.5	300	D ² -PAK
HFI5N50S	500	5.0	1.5	73	15.5	300	I ² -PAK
HFP5N50S	500	5.0	1.5	73	15.5	300	TO-220
HFS5N50S	500	5.0	1.5	38	15.5	300	TO-220F
HFW9N50	500	9.0	0.730	147	35	360	D ² -PAK
HFI9N50	500	9.0	0.730	147	35	360	I ² -PAK
HFP9N50	500	9.0	0.730	147	35	360	TO-220
HFS9N50	500	9.0	0.730	50	35	360	TO-220F
HFP840	500	9.0	0.850	135	25	360	TO-220
HFS840	500	9.0	0.850	44	25	360	TO-220F
HFP13N50S	500	13.0	0.480	195	38	560	TO-220
HFS13N50S	500	13.0	0.480	48	38	560	TO-220F
HFH18N50S	500	19.0	0.265	239	52	945	TO-3P
HFA24N50G	500	24.0	0.210	230	70	1200	TO-247

DISCRETE

MOSFETs (600V~650V)

Part Name	V _{DSS} [V]	I _D [A]	R _{DS(ON)} max [Ω]	P _D [W]	Q _g [nC]	E _{AS} [mJ]	Package
HFT1N60S	600	0.2	12.0	2.1	3	33	SOT-223
HFB1N60S	600	0.3	12.0	2.5	3	33	TO-92
HFD1N60S	600	1.0	12.0	28	3	33	D-PAK
HFU1N60S	600	1.0	12.0	28	3	33	I-PAK
HFD2N60S	600	1.9	5.0	44	6	120	D-PAK
HFU2N60S	600	1.9	5.0	44	6	120	I-PAK
HFP2N60S	600	2.0	5.0	54	6	120	TO-220
HFS2N60S	600	2.0	5.0	23	6	120	TO-220F
HFD5N60S	600	4.3	2.5	91	10.5	210	D-PAK
HFU5N60S	600	4.3	2.5	91	10.5	210	I-PAK
HFW5N60S	600	4.5	2.5	100	10.5	210	D ² -PAK
HFI5N60S	600	4.5	2.5	100	10.5	210	I ² -PAK
HFP5N60S	600	4.5	2.5	100	10.5	210	TO-220
HFS5N60S	600	4.5	2.5	33	10.5	210	TO-220F
HFP8N60S	600	7.5	1.2	147	22	230	TO-220
HFS8N60S	600	7.5	1.2	48	22	230	TO-220F
HFW10N60S	600	9.5	0.800	156	29	700	D ² -PAK
HFP10N60S	600	9.5	0.800	156	29	700	TO-220
HFS10N60S	600	9.5	0.800	50	29	700	TO-220F
HFW12N60S	600	12.0	0.650	225	38	870	D ² -PAK
HFP12N60S	600	12.0	0.650	225	38	870	TO-220
HFS12N60S	600	12.0	0.650	51	38	870	TO-220F
HFH19N60	600	18.5	0.380	300	95	1150	TO-3P
HFB1N65S	650	0.3	13.5	2.5	3	26	TO-92
HFD1N65S	650	0.9	13.5	28	3	26	D-PAK
HFU1N65S	650	0.9	13.5	28	3	26	I-PAK
HFD2N65S	650	1.6	6.5	44	6	100	D-PAK
HFU2N65S	650	1.6	6.5	44	6	100	I-PAK
HFP2N65S	650	1.8	6.5	54	6	100	TO-220
HFS2N65S	650	1.8	6.5	23	6	100	TO-220F
HFD5N65S	650	4.0	2.9	91	10.5	180	D-PAK
HFU5N65S	650	4.0	2.9	91	10.5	180	I-PAK
HFW5N65S	650	4.2	2.9	100	10.5	180	D ² -PAK
HFI5N65S	650	4.2	2.9	100	10.5	180	I ² -PAK
HFP5N65S	650	4.2	2.9	100	10.5	180	TO-220
HFS5N65S	650	4.2	2.9	33	10.5	180	TO-220F
HFP8N65S	650	7.2	1.4	147	22	210	TO-220
HFS8N65S	650	7.2	1.4	48	22	210	TO-220F
HFP10N65S	650	9.5	0.980	156	29	700	TO-220
HFS10N65S	650	9.5	0.980	50	29	700	TO-220F
HFP12N65S	650	12.0	0.780	225	38	860	TO-220
HFS12N65S	650	12.0	0.780	51	38	860	TO-220F

DISCRETE

MOSFETs (700V~900V)

Part Name	V _{DSS} [V]	I _D [A]	R _{DS(ON)} max [Ω]	P _D [W]	Q _g [nC]	E _{AS} [mJ]	Package
HFB1N70S	700	0.3	17.5	2.5	3.5	20	TO-92
HFD1N70S	700	0.8	17.5	30	3.5	20	D-PAK
HFU1N70S	700	0.8	17.5	30	3.5	20	I-PAK
HFD2N70S	700	1.5	7.0	38	6.2	62	D-PAK
HFU2N70S	700	1.5	7.0	38	6.2	62	I-PAK
HFP2N70S	700	1.6	7.0	43	6.2	62	TO-220
HFS2N70S	700	1.6	7.0	28	6.2	62	TO-220F
HFD5N70S	700	3.8	3.2	91	10.5	160	D-PAK
HFU5N70S	700	3.8	3.2	91	10.5	160	I-PAK
HFP5N70S	700	4.0	3.2	100	10.5	160	TO-220
HFS5N70S	700	4.0	3.2	33	10.5	160	TO-220F
HFS8N70S	700	7.0	1.6	48	22	190	TO-220F
HFD3N80	800	2.5	4.8	70	17	320	D-PAK
HFU3N80	800	2.5	4.8	70	17	320	I-PAK
HFP3N80	800	3.0	4.8	107	17	320	TO-220
HFS3N80	800	3.0	4.8	39	17	320	TO-220F
HFP5N80	800	5.0	2.6	140	30	450	TO-220
HFS5N80	800	5.0	2.6	47	30	450	TO-220F
HFP7N80	800	7.0	1.9	167	35	580	TO-220
HFS7N80	800	7.0	1.9	56	35	580	TO-220F
HFH7N80	800	7.0	1.9	198	35	580	TO-3P
HFS8N80	800	8.0	1.9	56	35	580	TO-220
HFP10N80	800	9.4	1.15	195	58	920	TO-220
HFS10N80	800	9.4	1.15	65	58	920	TO-220F
HFH10N80	800	10.0	1.15	240	58	920	TO-3P
HFH13N80	800	12.6	0.95	300	68	1100	TO-3P
HFD2N90	900	2.0	5.6	70	17	170	D-PAK
HFU2N90	900	2.0	5.6	70	17	170	I-PAK
HFP2N90	900	2.2	5.6	107	17	170	TO-220
HFS2N90	900	2.2	5.6	39	17	170	TO-220F
HFP4N90	900	4.0	3.0	140	30	570	TO-220
HFS4N90	900	4.0	3.0	47	30	570	TO-220F
HFW6N90	900	6.0	2.4	167	35	650	D ² -PAK
HFI6N90	900	6.0	2.4	167	35	650	I ² -PAK
HFP6N90	900	6.0	2.4	167	35	650	TO-220
HFS6N90	900	6.0	2.4	56	35	650	TO-220F
HFH6N90	900	6.0	2.4	198	35	650	TO-3P
HFH9N90	900	9.0	1.4	280	55	900	TO-3P
HFA9N90	900	9.0	1.4	110	55	900	TO-247
HFA9N90Z	900	9.0	1.4	110	55	900	TO-247
HFA10N90Z	900	10.0	1.3	115	72	900	TO-247
HFH11N90	900	11.0	1.15	300	75	960	TO-3P
HFA11N90	900	11.0	1.15	120	75	960	TO-247

DISCRETE

3rd-Gen MOSFETs (400V~650V)

Part Name	V _{DSS} [V]	I _D [A]	R _{DS(ON)} max [Ω]	P _D [W]	Q _g [nC]	E _{AS} [mJ]	Package
HFP730U	400	6.0	1.0	98	13	300	TO-220
HFS730U	400	6.0	1.0	35	13	300	TO-220F
HFD5N50U	500	4.0	1.5	63	13	230	D-PAK
HFU5N50U	500	4.0	1.5	63	13	230	I-PAK
HFP5N50U	500	5.0	1.5	98	13	230	TO-220
HFS5N50U	500	5.0	1.5	35	13	230	TO-220F
HFP13N50U	500	13.0	0.480	187	34	580	TO-220
HFS13N50U	500	13.0	0.480	41	34	580	TO-220F
HFP18N50U	500	18.0	0.265	236	58	950	TO-220
HFS18N50U	500	18.0	0.265	37	58	950	TO-220F
HFD2N60U	600	1.8	5.0	42	5.5	116	D-PAK
HFU2N60U	600	1.8	5.0	42	5.5	116	I-PAK
HFP2N60U	600	2.0	5.0	54	5.5	116	TO-220
HFS2N60U	600	2.0	5.0	23	5.5	116	TO-220F
HFD5N60U	600	3.6	2.5	80	10.5	163	D-PAK
HFU5N60U	600	3.6	2.5	80	10.5	163	I-PAK
HFP5N60U	600	4.5	2.5	123	10.5	163	TO-220
HFS5N60U	600	4.5	2.5	44	10.5	163	TO-220F
HFD6N60U	600	4.8	1.66	95	16	170	D-PAK
HFU6N60U	600	4.8	1.66	95	16	170	I-PAK
HFP6N60U	600	6.0	1.66	150	16	170	TO-220
HFS6N60U	600	6.0	1.66	54	16	170	TO-220F
HFD8N60U	600	6.0	1.2	98	22	280	D-PAK
HFU8N60U	600	6.0	1.2	98	22	280	I-PAK
HFP8N60U	600	7.5	1.2	150	22	280	TO-220
HFS8N60U	600	7.5	1.2	48	22	280	TO-220F
HFP10N60U	600	9.5	0.800	164	29	470	TO-220
HFS10N60U	600	9.5	0.800	50	29	470	TO-220F
HFP12N60U	600	12.0	0.650	230	42	840	TO-220
HFS12N60U	600	12.0	0.650	52	42	840	TO-220F
HFP13N60U	600	14.0	0.410	230	60	810	TO-220
HFS13N60U	600	14.0	0.410	54	60	810	TO-220F
HFD2N65U	650	1.8	6.5	42	5.5	116	D-PAK
HFU2N65U	650	1.8	6.5	42	5.5	116	I-PAK
HFP2N65U	650	2.0	6.5	54	5.5	116	TO-220
HFS2N65U	650	2.0	6.5	23	5.5	116	TO-220F
HFD5N65U	650	3.6	2.9	80	10.5	163	D-PAK
HFU5N65U	650	3.6	2.9	80	10.5	163	I-PAK
HFU5N65U	650	4.5	2.9	123	10.5	163	D ² -PAK
HFI5N65U	650	4.5	2.9	123	10.5	163	I ² -PAK
HFP5N65U	650	4.5	2.9	123	10.5	163	TO-220
HFS5N65U	650	4.5	2.9	44	10.5	163	TO-220F

DISCRETE

3rd-Gen MOSFETs (650V~700V)

Part Name	V _{DSS} [V]	I _D [A]	R _{DS(ON)} max [Ω]	P _D [W]	Q _g [nC]	E _{AS} [mJ]	Package
HFD6N65U	650	4.8	2.0	95	16	170	D-PAK
HFU6N65U	650	4.8	2.0	95	16	170	I-PAK
HFP6N65U	650	6.0	2.0	150	16	170	TO-220
HFS6N65U	650	6.0	2.0	54	16	170	TO-220F
HFD8N65U	650	6.0	1.4	98	22	280	D-PAK
HFU8N65U	650	6.0	1.4	98	22	280	I-PAK
HFU8N65U	650	7.5	1.4	150	22	280	D ² -PAK
HFI8N65U	650	7.5	1.4	150	22	280	I ² -PAK
HFP8N65U	650	7.5	1.4	150	22	280	TO-220
HFS8N65U	650	7.5	1.4	48	22	280	TO-220F
HFP10N65U	650	9.5	0.980	164	29	470	TO-220
HFS10N65U	650	9.5	0.980	50	29	470	TO-220F
HFP12N65U	650	12.0	0.780	230	42	800	TO-220
HFS12N65U	650	12.0	0.780	52	42	800	TO-220F
HFP13N65U	650	14.0	0.500	230	60	810	TO-220
HFS13N65U	650	14.0	0.500	54	60	810	TO-220F
HFD5N70U	700	3.6	3.2	80	10.5	163	D-PAK
HFU5N70U	700	3.6	3.2	80	10.5	163	I-PAK
HFD6N70U	700	4.8	2.3	95	16	170	D-PAK
HFU6N70U	700	4.8	2.3	95	16	170	I-PAK
HFU6N70U	700	6.0	2.3	40	16	170	SOT-82
HFP6N70U	700	6.0	2.3	150	16	170	TO-220
HFS6N70U	700	6.0	2.3	54	16	170	TO-220F
HFD8N70U	700	6.0	1.6	98	22	280	D-PAK
HFU8N70U	700	6.0	1.6	98	22	280	I-PAK
HFP8N70U	700	7.5	1.6	150	22	280	TO-220
HFS8N70U	700	7.5	1.6	48	22	280	TO-220F

4th-Gen MOSFETs (600V~650V)

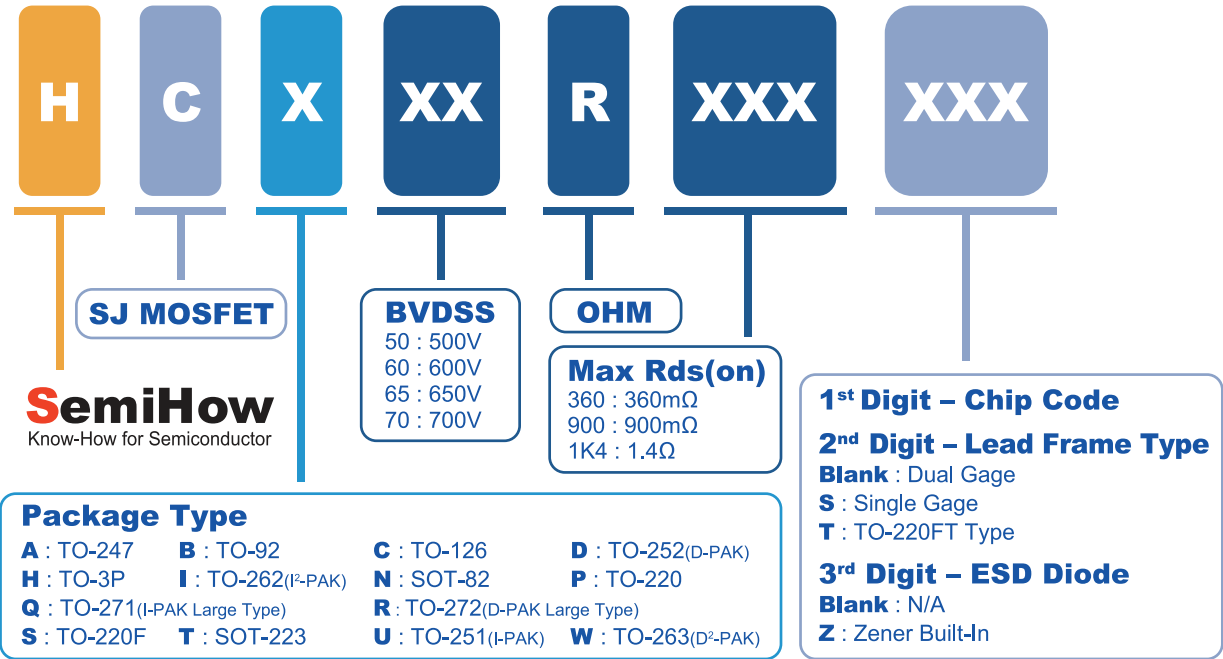
(Ruggedness improve / System oriented design)

Part Name	V _{DSS} [V]	I _D [A]	R _{DS(ON)} max [Ω]	P _D [W]	Q _g [nC]	E _{AS} [mJ]	Package
HFT1N60F	600	1.0	8.0	2.1	3.7	33	SOT-223
HFB1N60F	600	1.0	8.0	2.5	3.7	33	TO-92
HFD1N60F	600	1.0	8.0	28	3.7	33	D-PAK
HFU1N60F	600	1.0	8.0	28	3.7	33	I-PAK
HFD2N60F	600	2.0	4.5	42	6.5	110	D-PAK
HFU2N60F	600	2.0	4.5	42	6.5	110	I-PAK
HFP2N60F	600	2.0	4.5	54	6.5	110	TO-220
HFS2N60F	600	2.0	4.5	23	6.5	110	TO-220F
HFD2N65F	650	2.0	5.0	42	6.5	110	D-PAK
HFU2N65F	650	2.0	5.0	42	6.5	110	I-PAK
HFP2N65F	650	2.0	5.0	54	6.5	110	TO-220
HFS2N65F	650	2.0	5.0	23	6.5	110	TO-220F

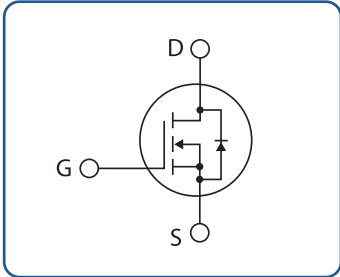
■ Under Line up expansion

DISCRETE

Super Junction MOSFET



SYMBOL



SJ-MOS (500V~600V)

Part Name	V _{DSS} [V]	I _D [A]	R _{DS(ON)} max [Ω]	P _D [W]	Q _g [nC]	E _{AS} [mJ]	Package
HCP50R150V	500	22.0	0.15	208	54	500	TO-220
HCS50R150V	500	22.0	0.15	34.5	54	500	TO-220F
HCP60R750V	600	7.0	0.75	83	14	90	TO-220
HCS60R750V	600	7.0	0.75	32	14	90	TO-220F
* HCP20NT60V	600	20.0	0.19	208	54	500	TO-220
* HCS20NT60V	600	20.0	0.19	34.5	54	500	TO-220F
* HCH20NT60V	600	20.0	0.19	208	54	500	TO-3P
HCP60R180S	600	21.0	0.18	180	46	710	TO-220
HCS60R180S	600	21.0	0.18	45	46	710	TO-220F

* Excluded from the Ordering rules

DISCRETE

SJ-MOS (650V~700V)

Part Name	V _{DSS} [V]	I _D [A]	R _{DS(ON)} max [Ω]	P _D [W]	Q _g [nC]	E _{AS} [mJ]	Package
HCU65R660S	650	6.2	0.66	63	14	120	I-PAK
HCD65R660S	650	6.2	0.66	63	14	120	D-PAK
HCP65R660S	650	6.2	0.66	96	14	120	TO-220
HCS65R660S	650	6.2	0.66	29	14	120	TO-220F
HCU65R600S	650	7.3	0.60	69	16	150	I-PAK
HCD65R600S	650	7.3	0.60	69	16	150	D-PAK
HCP65R600S	650	7.3	0.60	100	16	150	TO-220
HCS65R600S	650	7.3	0.60	30	16	150	TO-220F
HCU65R360S	650	11.0	0.36	100	23	300	I-PAK
HCD65R360S	650	11.0	0.36	100	23	300	D-PAK
HCP65R360S	650	11.0	0.36	125	23	300	TO-220
HCS65R360S	650	11.0	0.36	31	23	300	TO-220F
* HCP12NK65V	650	12.0	0.38	125	32	200	TO-220
* HCS12NK65V	650	12.0	0.38	33	32	200	TO-220F
HCP65R180S	650	20.0	0.18	180	46	710	TO-220
HCS65R180S	650	20.0	0.18	45	46	710	TO-220F
* HCU6N70S	700	3.0	1.25	28	7	25	I-PAK
* HCD6N70S	700	3.0	1.25	28	7	25	D-PAK
* HCU7N70S	700	5.0	1.10	28	9	40	I-PAK
* HCD7N70S	700	5.0	1.10	28	9	40	D-PAK
* HCS7N70S	700	5.0	1.10	28	9	40	TO-220F
HCU70R660S	700	6.2	0.66	63	14	100	I-PAK
HCD70R660S	700	6.2	0.66	63	14	100	D-PAK
HCP70R660S	700	6.2	0.66	96	14	100	TO-220
HCS70R660S	700	6.2	0.66	29	14	100	TO-220F
HCU70R600S	700	7.3	0.60	69	16	120	I-PAK
HCD70R600S	700	7.3	0.60	69	16	120	D-PAK
HCP70R600S	700	7.3	0.60	100	16	120	TO-220
HCS70R600S	700	7.3	0.60	30	16	120	TO-220F
HCU70R360S	700	11.0	0.36	100	23	280	I-PAK
HCD70R360S	700	11.0	0.36	100	23	280	D-PAK
HCP70R360S	700	11.0	0.36	125	23	280	TO-220
HCS70R360S	700	11.0	0.36	31	23	280	TO-220F

* Excluded from the Ordering rules

DISCRETE

Low Voltage Trench MOSFET

H

R

XX

XXX

X

XX

XXX

TRENCH MOSFET

Max Rds(on)
30 : 3mΩ
82 : 8.2mΩ
370 : 37mΩ
1B8 : 180mΩ

Polarity

BVDSS
03 : 30V
10 : 100V
15 : 150V

1st Digit – Gate Drive Voltage

Blank : Standard (VTH : 2.5 ~ 4.5)
L : Logic (VTH : 1~2.5)

2nd Digit – Package Type

A : TO-247 B : TO-92 C : TO-126 D : TO-252(D-PAK)
E : SOT-23 F : 8DFN(5x6) H : TO-3P I : TO-262(I²-PAK)
N : SOT-82 O : 8SOP(EP) P : TO-220
Q : TO-271(I-PAK Large Type) R : TO-272(D-PAK Large Type)
S : TO-220F T : SOT-223 U : TO-251(I-PAK) W : TO-263(D²-PAK)

1st Digit – Chip Code

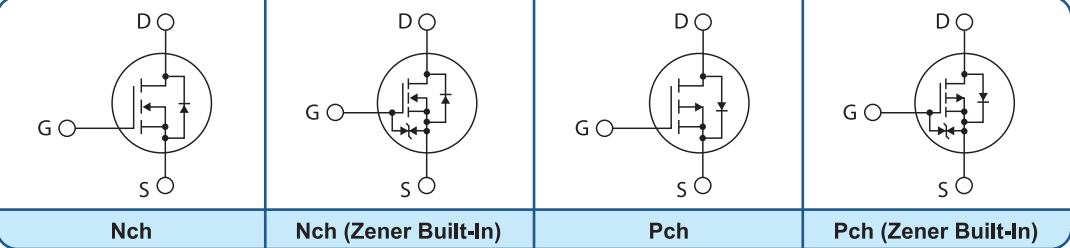
2nd Digit – Lead Frame Type

Blank : Dual Gage
S : Single Gage
T : TO-220FT Type

3rd Digit – ESD Diode

Blank : N/A
Z : Zener Built-In

SYMBOL



LV Trench MOS P-Ch (-30V)

Part Name	Gate Drive	Vdss [V]	Id [A]	RDS(ON)max [mΩ]	Pd [W]	Qg [nC]	Package
HRLE550P03K	Logic	-30	-4	55	1.4	18	SOT-23

LV Trench MOS N-Ch (30V~40V)

Part Name	Gate Drive	Vdss [V]	Id [A]	RDS(ON)max [mΩ]	Pd [W]	Qg [nC]	EAS [mJ]	Package
HRLO55N03K	Logic	30	16	5.5	2.5	50	300	8SOP
HRLD55N03K	Logic	30	100	5.5	75	50	300	D-PAK
HRLU55N03K	Logic	30	100	5.5	75	50	300	I-PAK
HRLP55N03K	Logic	30	100	5.5	94	50	300	TO-220
HRLO33N03K	Logic	30	23	3.3	2.5	110	1200	8SOP
HRLP33N03K	Logic	30	150	3.3	115	110	1200	TO-220
HRLO65N04K	Logic	40	15	6.5	2.5	80	600	8SOP
HRLO48N04K	Logic	40	18	6.5	2.5	110	900	8SOP
HRLO40N04K	Logic	40	20	4.0	2.5	130	1050	8SOP
HRLP40N04K	Logic	40	130	4.0	115	130	1050	TO-220
HRP35N04K	Std	40	150	3.5	136	110	3600	TO-220
HRP33N04K	Std	40	180	3.3	176	155	4900	TO-220
HRP30N04K	Std	40	230	3.0	250	200	5750	TO-220

DISCRETE

LV Trench MOS N-Ch (60V~80V)

Part Name	Gate Drive	Vdss [V]	Id [A]	RDS(ON)max [mΩ]	Pd [W]	Qg [nC]	EAS [mJ]	Package
* HRD50N06K	Std	60	40	14.0	39	40	145	D-PAK
* HRU50N06K	Std	60	40	14.0	39	40	145	I-PAK
HRF140N06K	Std	60	40	14.0	33	40	145	8DFN56
HRP140N06K	Std	60	40	14.0	50	40	145	TO-220
HRS140N06K	Std	60	40	14.0	29	40	145	TO-220F
HRF130N06K	Std	60	70	13.0	75	42	145	8DFN56
HRP130N06K	Std	60	70	13.0	115	42	145	TO-220
HRS130N06K	Std	60	70	13.0	43	42	145	TO-220F
HRLO125N06K	Logic	60	11	15.6	2.5	50	145	8SOP
HRLF125N06K	Logic	60	70	12.5	75	50	145	8DFN56
HRLD125N06K	Logic	60	70	12.5	94	50	145	D-PAK
HRLU125N06K	Logic	60	70	12.5	94	50	145	I-PAK
HRLP125N06K	Logic	60	70	12.5	115	50	145	TO-220
HRD85N06K	Std	60	80	8.5	86	73	275	D-PAK
HRU85N06K	Std	60	80	8.5	86	73	275	I-PAK
HRP85N06K	Std	60	80	8.5	110	73	275	TO-220
HRLO80N06K	Logic	60	13	8.0	2.5	100	340	8SOP
HRLU80N06K	Logic	60	80	8.0	160	100	340	I-PAK
HRD80N06K	Std	60	114	8.0	160	90	340	D-PAK
HRU80N06K	Std	60	114	8.0	160	90	340	I-PAK
HRP80N06K	Std	60	114	8.0	200	90	340	TO-220
HRS80N06K	Std	60	114	8.0	75	90	340	TO-220F
HRD72N06K	Std	60	100	7.2	110	75	415	D-PAK
HRU72N06K	Std	60	100	7.2	110	75	415	I-PAK
HRP72N06K	Std	60	100	7.2	136	75	415	TO-220
HRP70N06K	Std	60	80	7.0	88	100	415	TO-220
HRS70N06K	Std	60	80	7.0	33	100	415	TO-220F
HRP58N06K	Std	60	140	5.8	210	85	575	TO-220
HRP45N06K	Std	60	150	4.5	190	120	1080	TO-220
HRP39N06K	Std	60	180	3.9	230	150	2300	TO-220
HRP35N06K	Std	60	210	3.5	250	190	2590	TO-220
HRP75N07V	Std	70	48	7.5	125	80	810	TO-220
HRS75N07V	Std	70	48	7.5	38	80	810	TO-220F
HRP90N75K	Std	75	70	9.0	94	95	300	TO-220
HRS90N75K	Std	75	70	9.0	35	95	300	TO-220F
HRLO170N08K	Logic	80	9	17.0	2.5	40	120	8SOP
HRP100N08K	Std	80	65	10.0	88	73	210	TO-220
HRS100N08K	Std	80	65	10.0	33	73	210	TO-220F
HRP88N08K	Std	80	80	8.8	115	75	290	TO-220
HRS88N08K	Std	80	80	8.8	43	75	290	TO-220F
HFV85N08K	Std	80	110	8.5	200	75	385	D ² -PAK
HRP85N08K	Std	80	110	8.5	200	75	385	TO-220
HRS85N08K	Std	80	110	8.5	75	75	385	TO-220F
HRP80N08K	Std	80	120	8.0	230	60	500	TO-220
HRS80N08K	Std	80	120	8.0	85	60	500	TO-220F

* Excluded from the Ordering rules

DISCRETE

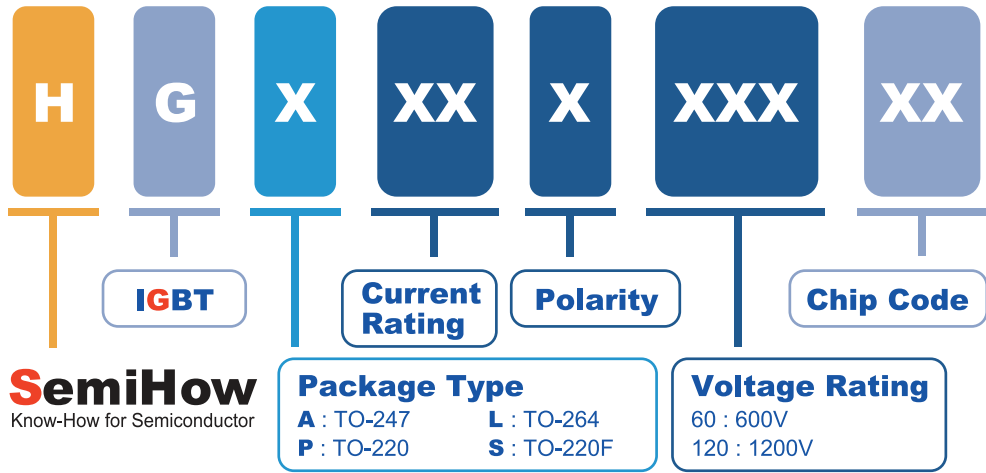
LV Trench MOS N-Ch (80V~100V)

Part Name	Gate Drive	V _{DSS} [V]	I _D [A]	R _{DS(ON)} max [mΩ]	P _D [W]	Q _g [nC]	E _{AS} [mJ]	Package
HRA56N08K	Std	80	110	5.6	136	110	745	TO-247
HRP56N08K	Std	80	110	5.6	136	110	745	TO-220
HRS56N08K	Std	80	110	5.6	50	110	745	TO-220F
HRA45N08K	Std	80	150	4.5	200	155	1080	TO-247
HRP45N08K	Std	80	150	4.5	200	155	1080	TO-220
HRS45N08K	Std	80	150	4.5	75	155	1080	TO-220F
HRP40N08K	Std	80	180	4.0	250	190	1400	TO-220
HRA40N08K	Std	80	180	4.0	250	190	1400	TO-247
HRLD1B8N10K	Logic	100	2.7	180	33	11.5	22	D-PAK
HRLU1B8N10K	Logic	100	2.7	180	33	11.5	22	I-PAK
* HRD13N10K	Logic	100	3.5	105	37	20	40	D-PAK
* HRU13N10K	Logic	100	3.5	105	37	20	40	I-PAK
HRLO370N10K	Logic	100	6	37	2.5	53	80	8SOP
HRLD370N10K	Logic	100	25	37	48	53	80	D-PAK
HRLU370N10K	Logic	100	25	37	48	53	80	I-PAK
HRLP370N10K	Std	100	25	37	60	53	80	TO-220
HRP370N10K	Std	100	25	37	60	50	80	TO-220
HRS370N10K	Std	100	25	37	45	50	80	TO-220F
HRLO220N10K	Logic	100	8	22	2.5	70	140	8SOP
HRLO180N10K	Logic	100	9	18	2.5	85	170	8SOP
HRLP180N10K	Logic	100	65	18	167	85	170	TO-220
HRD180N10K	Std	100	65	18	133	85	170	D-PAK
HRU180N10K	Std	100	65	18	133	85	170	I-PAK
HRW180N10K	Std	100	65	18	167	85	170	D ² -PAK
HRP180N10K	Std	100	65	18	167	85	170	TO-220
HRLD150N10K	Logic	100	70	15	110	80	265	D-PAK
HRLU150N10K	Logic	100	70	15	110	80	265	I-PAK
HRLP150N10K	Logic	100	70	15	136	80	265	TO-220
HRF120N10K	Std	100	73	12	88	65	265	8DFN56
HRD120N10K	Std	100	73	12	110	65	265	D-PAK
HRU120N10K	Std	100	73	12	110	65	265	I-PAK
HRI120N10K	Std	100	73	12	136	65	265	I ² -PAK
HRP120N10K	Std	100	73	12	136	65	265	TO-220
HRS120N10K	Std	100	73	12	50	65	265	TO-220F
HRW82N10K	Std	100	100	8.2	167	110	560	D ² -PAK
HRI82N10K	Std	100	100	8.2	167	110	560	I ² -PAK
HRA82N10K	Std	100	100	8.2	167	110	560	TO-247
HRP82N10K	Std	100	100	8.2	167	110	560	TO-220
HRS82N10K	Std	100	100	8.2	63	110	560	TO-220F
HRA72N10K	Std	100	140	7.2	300	150	850	TO-247
HRI72N10K	Std	100	140	7.2	300	150	850	I ² -PAK
HRP72N10K	Std	100	140	7.2	300	150	850	TO-220
HRS72N10K	Std	100	140	7.2	110	150	850	TO-220
HRP55N10K	Std	100	170	5.5	300	190	910	TO-220

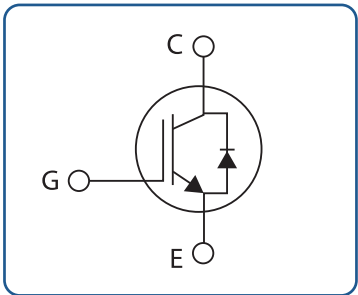
* Excluded from the Ordering rules

DISCRETE

IGBT



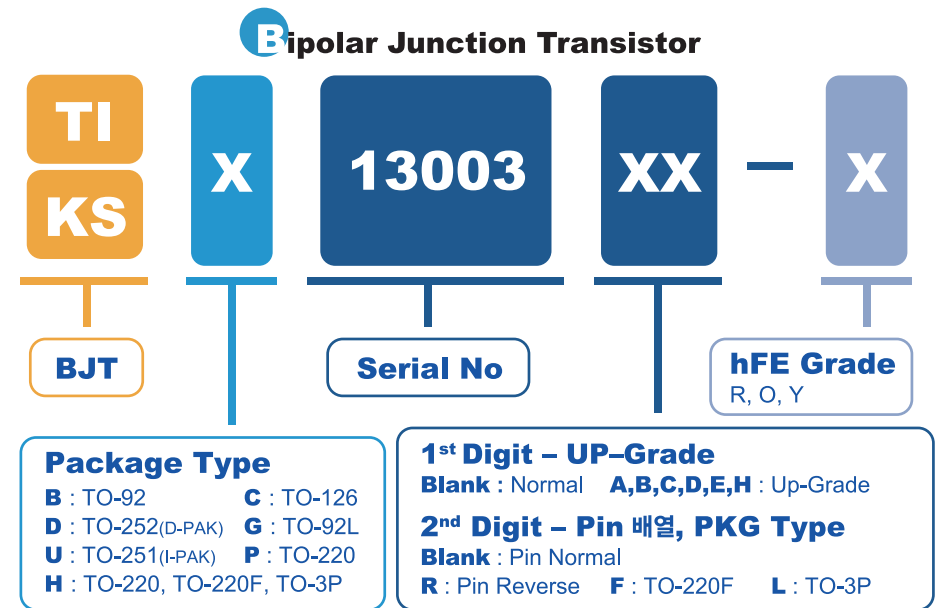
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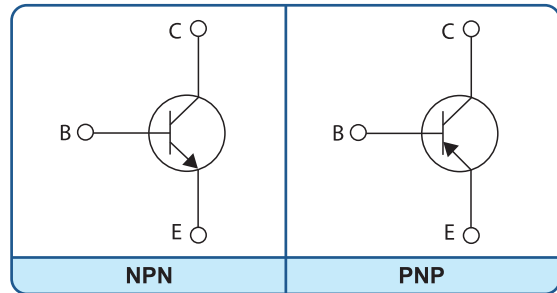
Part Name	V _{CES} [V]	I _C [A]		V _{CE(SAT)} [V]		t _r [ns]	E _{OFF} [mJ]	Package	Type	Built-In FWD
		@25°C	@100°C	Typ	Max	Typ	Typ			
* HGA30N60GV	600	60	30	1.5	2.0	50	0.73	TO-247	FS	O
* HGA40N60GV	600	80	40	1.8	2.3	55	1.14	TO-247	FS	O
* HGA60N60GV	600	120	60	1.8	2.3	80	1.53	TO-247	FS	O
* HGA15N120GV	1200	30	15	1.9	2.5	60	1.24	TO-247	FS	O
* HGA30N120GV	1200	60	30	2.0	2.5	70	1.85	TO-247	FS	O
HGA40N120FV	1200	80	40	2.0	2.6	85	2.20	TO-247	FS	O
HGL40N120GV	1200	80	40	2.0	2.6	85	2.20	TO-264	FS	O
* HGA30N135FV	1350	60	30	1.65	1.85	47	0.41	TO-247	FS	O

* Development plan

DISCRETE



SYMBOL



Epitaxial Silicon Transistor

Part Name	BV _{CBO} [V]	BV _{CEO} [V]	I _{C(CONT)} [A]	P _C [W]	hfe								Package
					R		O		Y		G		
					min	Max	min	Max	min	Max	min	Max	
KSH772	-40	-30	-3	10	60	120	100	200	160	320	200	400	TO-126
KSH882	40	30	3	10	60	120	100	200	160	320	200	400	
TIP31C	100	100	3	40	10	50							TO-220
TIP32C	-100	-100	-3	40	10	50							
TIP41C	100	100	6	65	15	75							
TIP42C	-100	-100	-6	65	15	75							

Epitaxial Silicon Darlington Transistor

Part Name	BV _{CEO} [V]	BV _{CBO} [V]	I _{C(CONT)} [A]	P _C [W]	hfe		Product	Package
					Min	Max		
TIP102	100	100	8	80	1000	20000	TIP100/101/102	TO-220
TIP107	-100	-100	-8	80	1000	20000	TIP105/106/107	
TIP122	100	100	5	65	1000		TIP120/121/122	
TIP127	-100	-100	-5	65	1000		TIP125/126/127	
TIP142T	100	100	10	80	1000		TIP140T/141T/142T	
TIP147T	-100	-100	-10	80	1000		TIP145T/146T/147T	

DISCRETE

Silicon Transistor

Part Name	B _V CBO [V]	B _V CEO [V]	I _C (CONT) [A]	P _C [W]	hfe	Package		
KSB13002AR	700	400	0.8	1	9 ~ 38	TO-92		
KSB13003E			1.5	1.1	20 ~ 40	TO-92		
KSB13003ER				25		DPAK		
KSD13003E							IPAK	
KSD13003ER				1.5	1.1	10 ~ 35		TO-92
KSU13003E			1.5		TO-92L			
KSU13003ER			20		TO-126			
KSB13003A			30		TO-220			
KSB13003AR			4	2.8	20 ~ 40	TO-92		
KSG13003AR				3.8		TO-92L		
KSD13005A				40		DPAK		
KSU13005A				75		IPAK		
KSH13005A			8	30	8 ~ 50	TO-220		
KSH13005AF				80		TO-220F		
KSH13007A				40		TO-220F		
KSH13007AF				100		TO-220		
KSH13009A			12	50	8 ~ 40	TO-220F		
KSH13009AF				130		TO-3P		
KSH13009AL				3		TO-92		
KSB13004B			800	400	3	1.5	10 ~ 40	TO-92
KSB13003C			800	450	1.5	1.1	20 ~ 40	TO-92
KSB13003CR						25		IPAK
KSU13003C							1.5	
KSU13003CR						900	500	3
KSB13004C			850	450	3	1.5	10 ~ 40	TO-92
KSB13004D	900	500	3	1.5	10 ~ 40	TO-92		
KSB13003H	900	530	1.5	1.1	20 ~ 40	TO-92		
KSB13003HR				20		TO-126		
KSC13003H				25		IPAK		
KSU13003H				30		DPAK		
KSD741	1050	550	2	60	50 ~ 100	TO-220		
KSP741				70		TO-220		
KSP742C			4	50 ~ 100	TO-220			
KSH5027A	1100	800	3	50	10 ~ 40	TO-220		
KSH5027AF				40		TO-220F		

DISCRETE

HTXXAXX

TRIAC

Current Rating

Ampere

Voltage Rating
60 : 600V
80 : 800V / 1000V

SYMBOL

Package Type

B : TO-92 C : TO-126 D : TO-252(D-PAK)
K : SOT-89 U : TO-251(HPAK) P : TO-220
S : TO-220F

General description

Blank, S : Sensitive
A, H : Standard
AS : AC Switching

Part Name	V _{DRM} [V]	V _{RRM} [V]	I _T (RMS) [A]	V _{TM} [V]	V _{GT} [V]		I _{GT} [mA]				I _H [mA]	Package
					1+1-3-	3+	1+	1-	3-	3+		
HTB1A60	600	600	1	1.6	1.5	2		5		12	4	TO-92
HTK1A60	600	600	1	1.6	1.5	2		5		12	4	SOT-89
* BT134-600	600	600	4	1.6	1.5	2		5		12	5	TO-126
* BT136-600	600	600	4	1.6	1.5	2		5		12	5	TO-220
HTC4A60S	600	600	4	1.6	1.5	2		5		12	5	TO-126
HTP4A60S	600	600	4	1.6	1.5	2		5		12	5	TO-220
HTC4A60H	600	600	4	1.7	1.5	-		25		-	30	TO-126
HTP4A60H	600	600	4	1.7	1.5	-		25		-	30	TO-220
HTS4A60H	600	600	4	1.7	1.5	-		25		-	30	TO-220F
HTP6A60H	600	600	6	1.5	1.5	-		25		-	45	TO-220
HTS6A60H	600	600	6	1.5	1.5	-		25		-	45	TO-220F
* HTP8-600	600	600	8	1.4	1.5	-		30		-	15	TO-220
* HTS8-600	600	600	8	1.4	1.5	-		30		-	15	TO-220F
HTP8A60H	600	600	8	1.5	1.5	-		35		-	30	TO-220
HTS8A60H	600	600	8	1.5	1.5	-		35		-	30	TO-220F
HTP12A60H	600	600	12	1.4	1.5	-		35		-	45	TO-220
HTS12A60H	600	600	12	1.4	1.5	-		35		-	45	TO-220F
HTP16A60H	600	600	16	1.4	1.5	-		35		-	50	TO-220
HTS16A60H	600	600	16	1.4	1.5	-		35		-	50	TO-220F
HTS25A60H	600	600	25	1.4	1.5	-		35		-	55	TO-220F
HTB1A80	800	800	1	1.6	1.5	2		5		12	4	TO-92
HTK1A80	800	800	1	1.6	1.5	2		5		12	4	SOT-89
HTS4A80A	800	800	4	1.6	1.3	-		35		-	30	TO-220F
HTC4A80H	800	800	4	1.7	1.5	-		25		-	30	TO-126
HTP4A80H	800	800	4	1.7	1.5	-		25		-	30	TO-220
HTS4A80H	800	800	4	1.7	1.5	-		25		-	30	TO-220F
HTP6A80H	800	800	6	1.5	1.5	-		25		-	45	TO-220
HTS6A80H	800	800	6	1.5	1.5	-		25		-	45	TO-220F
HTP8A80H	800	800	8	1.5	1.5	-		35		-	30	TO-220
HTS8A80H	800	800	8	1.5	1.5	-		35		-	30	TO-220F
HTP12A80H	800	800	12	1.4	1.5	-		35		-	45	TO-220
HTS12A80H	800	800	12	1.4	1.5	-		35		-	45	TO-220F
HTP16A80H	800	800	16	1.4	1.5	-		35		-	50	TO-220
HTS16A80H	800	800	16	1.4	1.5	-		35		-	50	TO-220F
HTB1A80AS	1000	1000	1	1.5	1.4	-	3	5		-	10	TO-92
HTD2A80AS	1000	1000	2	1.6	1.5	-	6	10		-	10	TO-252
HTS4A80AS	1000	1000	4	1.55	1.4	-	6	10		-	25	TO-220F
HTS8A80AS	1000	1000	8	1.55	1.4	-	6	10		-	15	TO-220F
HTS10A80AS	1000	1000	10	1.55	1.4	-	20	35		-	50	TO-220F

* Excluded from the Ordering rules

DISCRETE

M

C

X

XXX-X

SCR

Serial No

Package Type

C : TO-126 K : SOT-89 R : TO-92

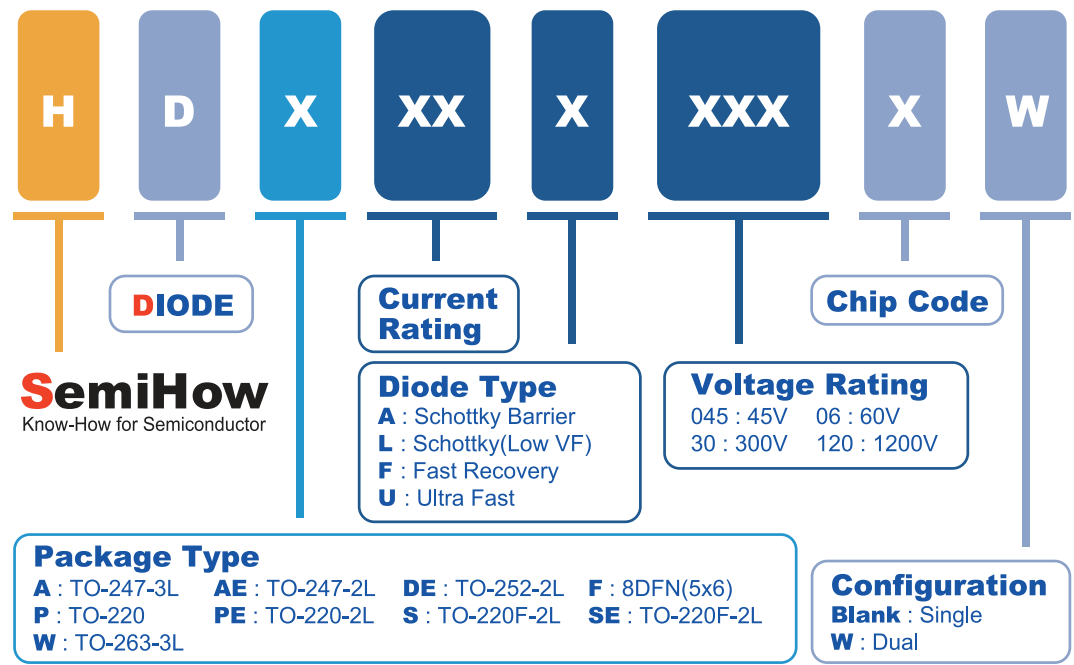
SYMBOL

Part Name	V _{DRM} [V]	V _{RRM} [V]	I _T (RMS) [A]	V _{TM} [V] / I _T [A]	V _{GT} [V]	I _{GT} [mA]	I _H [mA]	Package
MCR100-6	400	400	0.8	1.7/1.1	1	0.2	1	TO-92
MCK100-6	400	400	0.8	1.7/1.1	1	0.2	1	SOT-89
MCR100-8	600	600	1	1.6/1.4	1	0.2	2	TO-92
MCK100-8	600	600	1	1.6/1.4	1	0.2	2	SOT-89
* HSC106M	600	600	4	2.2/1	0.8	0.2	3	TO-126

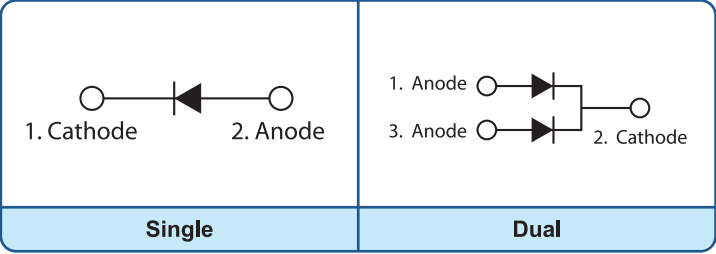
* Excluded from the Ordering rules

DISCRETE

Fast Recovery Diode



SYMBOL



FRD (200V~300V)

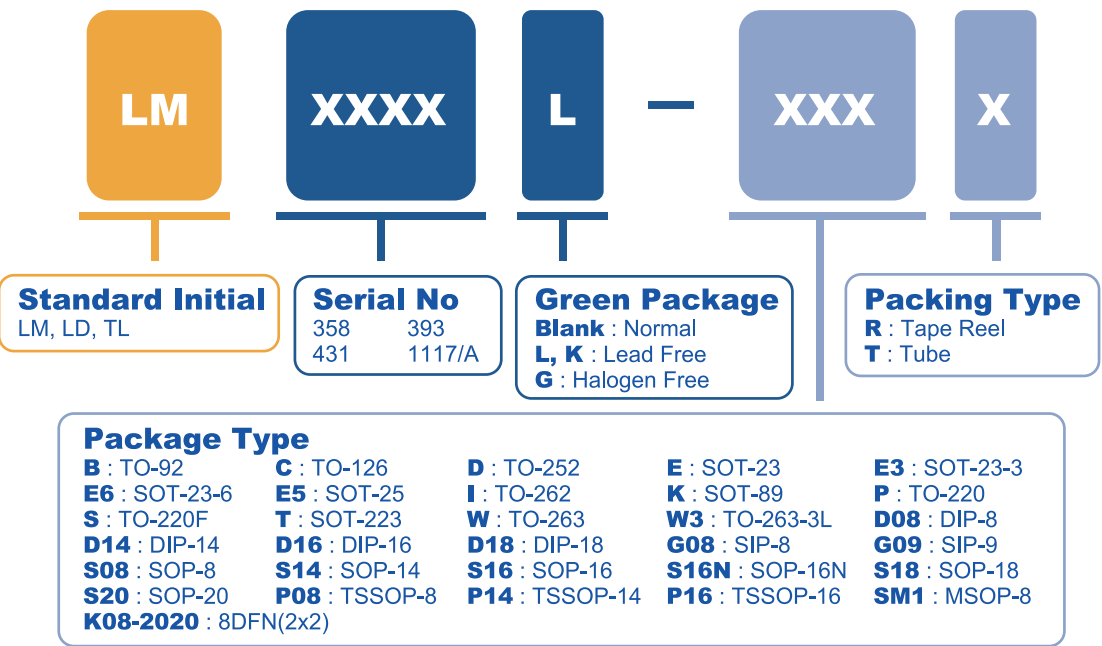
Part Name	VRRM [V]	IF [A]	VF (Typ) [V]	Trr @1A (Typ) [nS]	Package	Configuration
HDPE15U20G	200	15	0.93	20	TO-220-2L	Single
HDSE15U20G	200	15	0.93	20	TO-220F-2L	Single
HDPE20U20G	200	20	0.95	20	TO-220-2L	Single
HDSE20U20G	200	20	0.95	20	TO-220F-2L	Single
HDA40U20GW	200	40 (20x2)	0.95	20	TO-247-3L	Dual
HDSE10U30G	300	10	1.05	21	TO-220F-2L	Single
HDS20U30GW	300	20 (10x2)	1.05	21	TO-220F-3L	Dual
HDW20U30GW	300	20 (10x2)	1.05	21	TO-263-3L	Dual
HDA60U30GW	300	60 (30x2)	1	30	TO-247-3L	Dual
HDA60U30DW	300	60 (30x2)	1.3	25	TO-247-3L	Dual

DISCRETE

FRD (400V~1200V)

Part Name	VRRM [V]	IF [A]	VF (Typ) [V]	Trr @1A (Typ) [nS]	Package	Configuration
HDDE10U40G	400	10	1.15	23	TO-252-2L	Single
HDPE10U40G	400	10	1.15	23	TO-220-2L	Single
HDSE10U40G	400	10	1.15	23	TO-220F-2L	Single
HDPE15U40G	400	15	1.2	28	TO-220-2L	Single
HDSE15U40G	400	15	1.2	28	TO-220F-2L	Single
HDS20U40GW	400	20 (10x2)	1.15	23	TO-220F-3L	Dual
HDW20U40GW	400	20 (10x2)	1.15	23	TO-263-3L	Dual
HDA20U40GW	400	20 (10x2)	1.15	23	TO-247-3L	Dual
HDA80U40GW	400	80 (40x2)	1.2	33	TO-247-3L	Dual
HDPE8U60G	600	8	1.4	27	TO-220-2L	Single
HDSE8U60G	600	8	1.4	27	TO-220F-2L	Single
HDPE10U60G	600	10	1.3	27	TO-220-2L	Single
HDSE10U60G	600	10	1.3	27	TO-220F-2L	Single
HDPE15U60G	600	15	1.25	28	TO-220-2L	Single
HDSE15U60G	600	15	1.25	28	TO-220F-2L	Single
HDAE30U60G	600	30	1.25	33	TO-247-2L	Single
HDAE60F60G	600	60	1.2	39	TO-247-2L	Single
HDA60U60GW	600	60 (30x2)	1.25	33	TO-247-3L	Dual
HDAE75F60G	600	75	1.2	43	TO-247-2L	Single
HDPE8U120G	1200	8	2	27	TO-220-2L	Single
HDPE15U120G	1200	15	2.2	35	TO-220-2L	Single
HDPE30U120G	1200	30	2.2	38	TO-220-2L	Single

IC



Operational Amplifier

Part Name	Features	V _{cc} (range)	Bandwidth	Package
LM358	Low Power Dual Operational Amplifier	3V ~ 32V or ±16V	-	DIP-8, SIP-8, SOP-8, TSSOP-8, MSOP-8, DFN-8(2x2)
LM4558	Dual Wide Bandwidth Operational Amplifier	±22V	2.8MHz (Unity)	DIP-8, SOP-8, TSSOP-8, SIP-9
LM324	Low Power Dual Operational Amplifier	3V ~ 32V or ±16V	-	DIP-14, SOP-14, TSSOP-14

Voltage Comparator

Part Name	Features	V _{cc} (range)	P _d (mW)	Package
LM393	Dual Differential Comparator	2V ~ 36V or ±18V	600/420/350	DIP-8, SOP-8, TSSOP-8, MSOP-8, DFN-8 (2x2)
LM339	Quad Differential Comparator	2V ~ 36V or ±18V	760/560/440	DIP-14, SOP-14, TSSOP-14

Leakage Current Detector

Part Name	Features	V _{cc}	P _d (mW)	Package
LM54123L	Earth Leakage Current Detector	12V ~ 20V	200	SOP-8, DIP-8, SIP-8

IC

Interface and Driver Circuit

Part Name	Features	IOS(H) IOS(L)	VDD, VSS VOH	VDD, VSS VOL	Package
LM2003	7CH Darlington Sink Driver	500mA	Vout=50V	Vin=24V	DIP-16, SOP-16, SOP-16N, TSSOP-16
LM2803	8CH Darlington Arrays	500mA	50V	30V	SOP-18, DIP-18
LM62783	8CH High-Voltage Source Driver	50V (MAX)	0V ~ 2V	0V ~ 2V	DIP-18, SOP-18, SOP-20

Shunt Reference Regulators

Part Name	Features	V _{ka} [V]	V _{ref} [V]	I _{ka} [mA]	I _{ref} [μA]	Z _{ka} [Ω]	Package
TL431	Programmable Precision Reference	36V	2.495V	100mA	1.5μA	0.15	SOT-89, SOT-23, SOT-23-3, SOT-25, SOP-8, TO-92

Low Dropout Linear Regulators

Part Name	Features	V _{in} (range)	V _{out} [V]	I _q (max)	V _d (max)	PSRR (Typ)	Package
LD1117 LD1117A	Low Drop Fixed & Adjustable Positive Voltage Regulators	2.5~15V	1.2V~5V & ADJ	10mA	1.3V	75	SOT-223, SOT-89, SOP-8 TO-220, TO-220F, TO-252, TO-263, TO-263-3

Linear Regulators

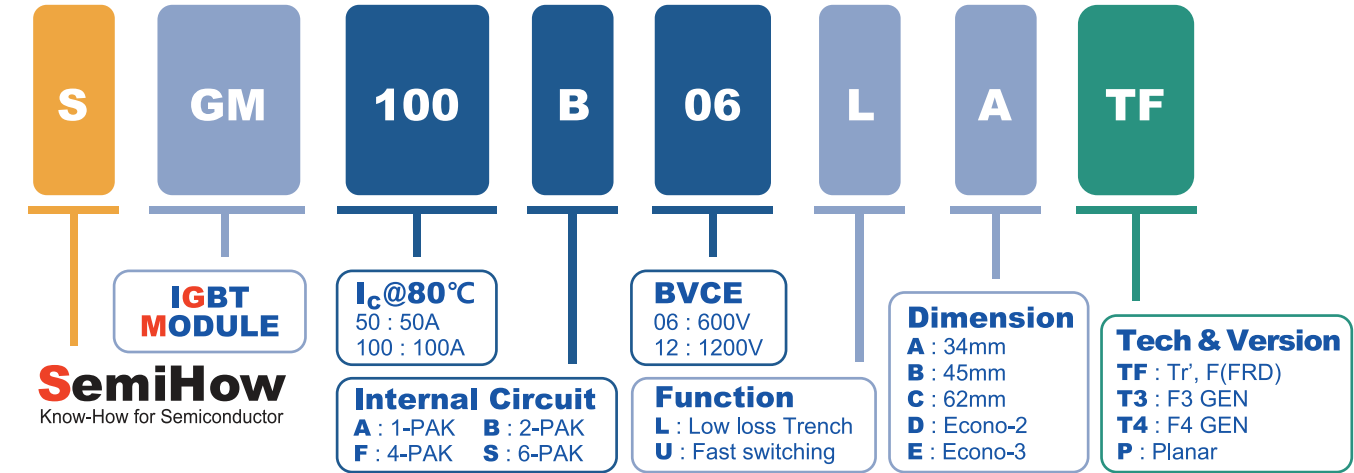
Part Name	Features	V _{in} (range)	V _{out}	I _q (max)	V _d (Typ)	PSRR (Typ)	Package
LM78LXX	0.1A Positive Fixed Linear Regulator	6.7~35V	5.0~24V	6mA	1.7V	70	SOP-8, SOT-89, SOT-25, TO-92, TO-92LN
LM78MXX	0.5A Positive Fixed Voltage Regulator	7.0~40V	5.0~24V	6mA	2.0V	62	TO-92, TO-126, TO-126C, TO-220, TO-220F
LM78XX	1.0A Positive Fixed Voltage Regulator	6.7~40V	4.7~24V	8mA	2.0V	80	TO-92, TO-220, TO-220F, TO-262
LM79LXX	0.1A Negative Fixed Linear Regulator	-7.0~-35V	-5.0~-24V	6mA	-	70	SOT-89, SOP-8, TO-92
LM79XX	1.0A Negative Fixed Voltage Regulator	-7.0~-40V	-5.0~-24V	6mA	2.0V	60	TO-220, TO-220F

Timer

Part Name	Features	V _{cc}	P _d (mW)	Package
LM555	Single Timer	4.5 ~ 16V	600	SOP-8, DIP-8

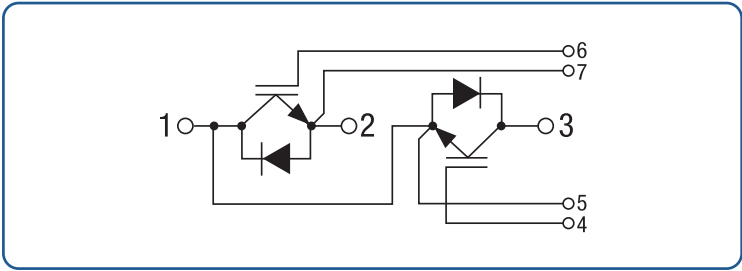
MODULE

IGBT



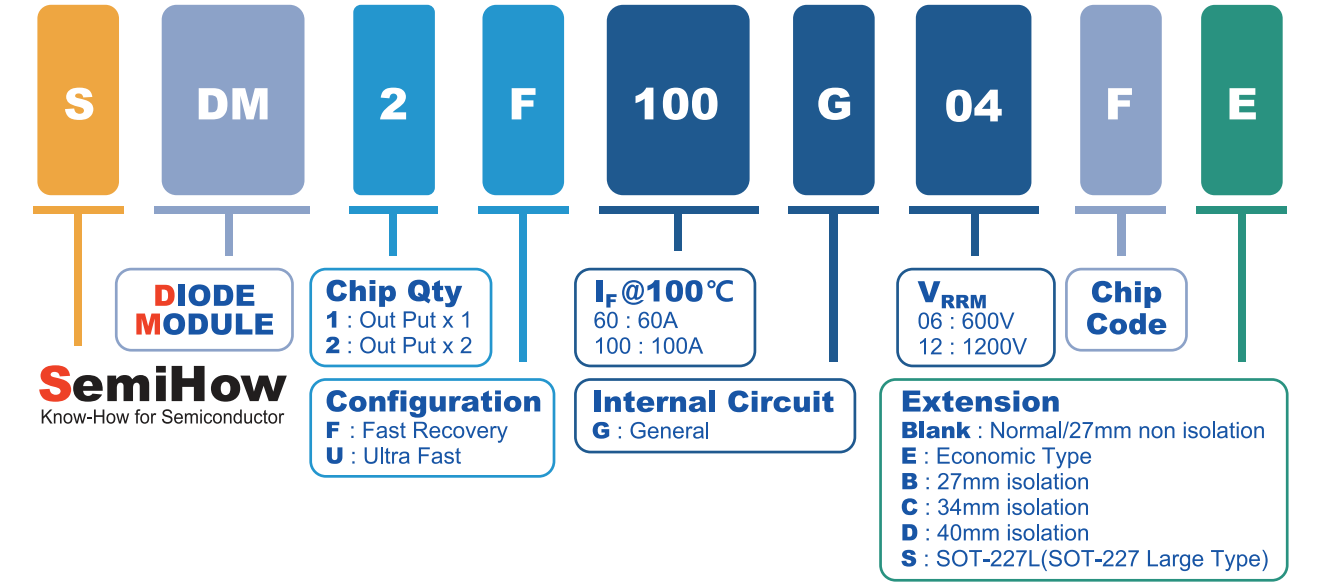
Part Name	V _{CES} [V]	I _C @80°C [A]	V _{CE(SAT)} (Typ) [V]	t _r (Typ) [ns]	E _{OFF} (Typ) [mJ]	V _F (Typ) [V]	t _{rr} @Rating (Typ) [ns]	Package	Type
SGM75B06LAT3	600	75	1.50	160	2.00	1.60	140	34mm	Low Loss
SGM100B06LAT3	600	100	1.50	135	2.50	1.53	160	34mm	Low Loss
SGM50B12LAT4	1200	50	1.90	205	2.70	1.70	265	34mm	Low Loss
SGM50B12UAT4	1200	50	2.15	169	1.68	1.74	135	34mm	Ultra Fast
SGM75B12LAT4	1200	75	2.00	188	4.00	1.65	400	34mm	Low Loss
SGM75B12UAT4	1200	75	2.20	148	2.58	1.69	425	34mm	Ultra Fast
SGM100B12LAT4	1200	100	1.90	185	5.40	1.70	360	34mm	Low Loss
SGM100B12UAT4	1200	100	2.16	133	3.50	1.73	376	34mm	Ultra Fast
SGM100B12LCT4	1200	100	2.00	180	6.00	1.70	180	62mm	Low Loss
SGM100B12UCT4	1200	100	2.25	137	3.45	1.80	330	62mm	Ultra Fast
SGM150B12LCT4	1200	150	2.10	155	9.30	1.80	310	62mm	Low Loss
SGM150B12UCT4	1200	150	2.25	115	5.60	1.70	460	62mm	Ultra Fast
SGM200B12LCT4	1200	200	1.90	142	14.00	1.80	426	62mm	Low Loss
SGM200B12UCT4	1200	200	2.25	115	8.00	1.70	380	62mm	Ultra Fast
SGM300B12LCT4	1200	300	2.00	100	34.00	1.70	640	62mm	Low Loss
SGM400B12LCT4	1200	400	2.10	100	30.00	1.80	360	62mm	Low Loss

Internal Circuit Diagram



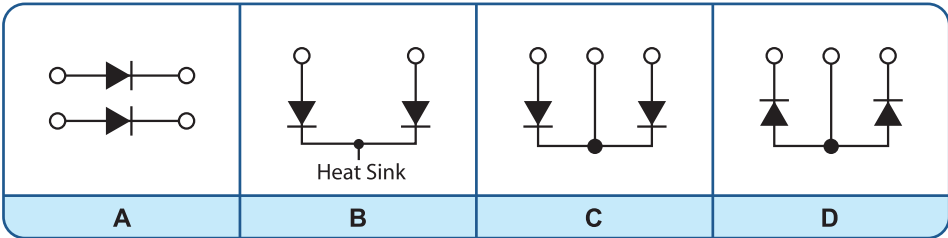
MODULE

FRD



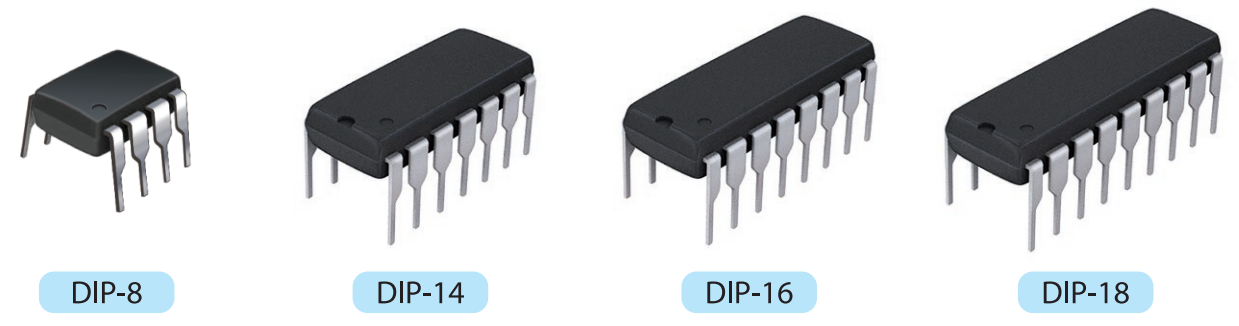
Part Name	V _{RRM} [V]	I _{FM} @100°C [A]	V _F (Typ) [V]	t _{rr} (Typ) [ns]		Package	Internal Circuit	Remark
				@1A	@Rating			
SDM2F60G04FS	400	60 x 2	1.00	40	59	SOT-227L	A	Iso
SDM2F100G04FE	400	100 x 2	1.05	45	90	27mm	B	Non Iso
SDM2F100G04GS	400	100 x 2	1.25	45	55	SOT-227L	A	Iso
SDM2F100G04G	400	100 x 2	1.25	45	55	27mm	B	Non Iso
SDM2F150G04G	400	150 x 2	1.25	45	65	27mm	B	Non Iso
SDM2F100G06GS	600	100 x 2	1.15	45	90	SOT-227L	A	Iso
SDM2F100G06G	600	100 x 2	1.15	45	90	27mm	B	Non Iso
SDM2F100G06GC	600	100 x 2	1.15	45	90	34mm	C	Iso
SDM2F100GA06GC	600	100 x 2	1.15	45	90	34mm	D	Iso
SDM2F150G06G	600	150 x 2	1.15	45	110	27mm	B	Non Iso
SDM2F150G06GC	600	150 x 2	1.15	45	110	34mm	C	Iso
SDM2F150GA06GC	600	150 x 2	1.15	45	110	34mm	D	Iso
SDM2F200G06GC	600	200 x 2	1.15	45	130	34mm	C	Iso
SDM2F200GA06GC	600	200 x 2	1.15	45	130	34mm	D	Iso
SDM2FG75G12FS	1200	75 x 2	2.90	30	50	SOT-227L	A	Iso

Internal Circuit Diagram

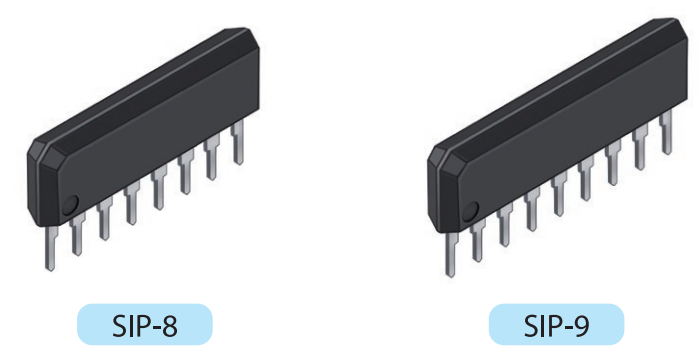


PACKAGE LINE UP

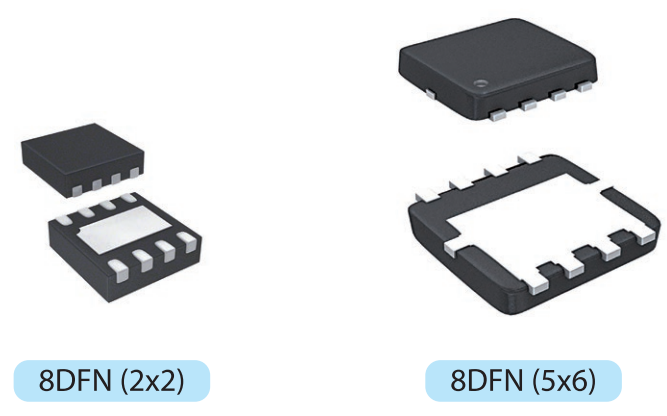
DIP Series (IC)



SIP Series (IC)

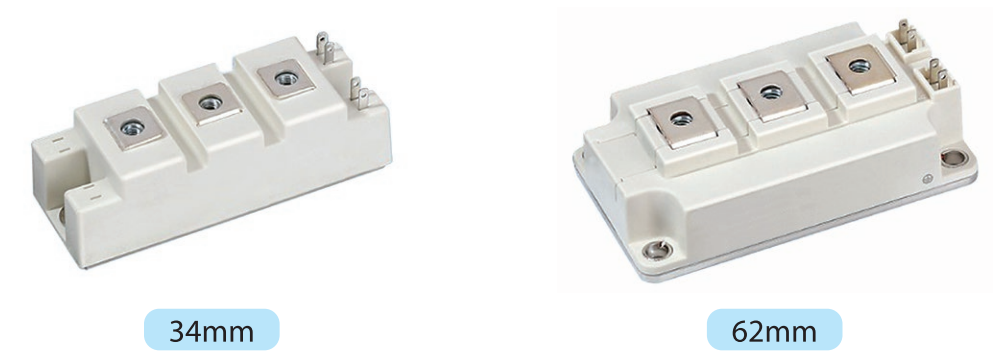


DFN Series (MOSFET, IC)



PACKAGE LINE UP

MODULE(IGBT) Series



MODULE(FRD) Series



APPLICATION

LED TV SMPS



- MOSFET (500~650V)
- SJ-MOS (600V)
- FRD (300~600V)
- IC (TL431)

Note PC & Monitor Adapter



- MOSFET (500~650V)
- SJ-MOS (600~700V)
- FRD (300~600V)
- IC (TL431)

Mobile Charger



- MOSFET (700V)
- SJ-MOS (700V)
- BJT (13 Series)

Car Amp



- MOSFET (200~400V)
- LV-MOS (60~100V)

LED Power



- MOSFET (600~800V)
- SJ-MOS (600~700V)
- FRD (300~600V)

Ballast



- MOSFET (400~500V)
- BJT (13 Series)

Electric Bicycle



- [Driver]
- LV-MOS (75~150V)
- [Charger]
- MOSFET (600~650V)
 - SJ-MOS (600~700V)

AC-DC(DC-AC) Converter

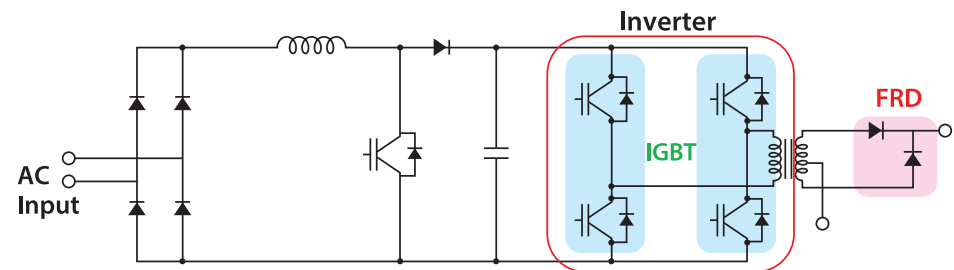


- [AC-DC]
- MOSFET (500~600V)
 - SJ-MOS (600~700V)
 - FRD (400~600V)
- [DC-AC]
- LV-MOS (60~100V)
 - MOSFET (200~400V)

APPLICATION

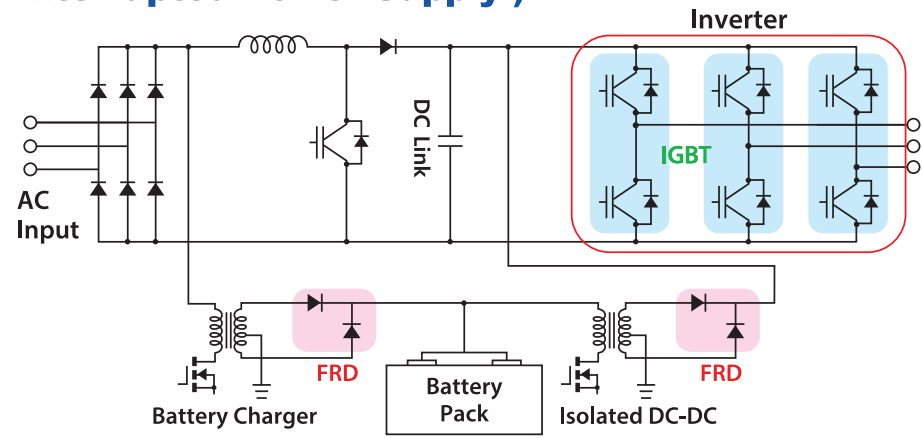
INDUSTRIAL

• Welding Machine & EV Car Charger Station



Target Application	Target Device
 Welding	 EV Car Charger
	• Discrete IGBT : 600~1200V / FRD : 200~1200V • Module IGBT : 600~1200V / FRD : 400~1200V

• UPS (Uninterrupted Power Supply)

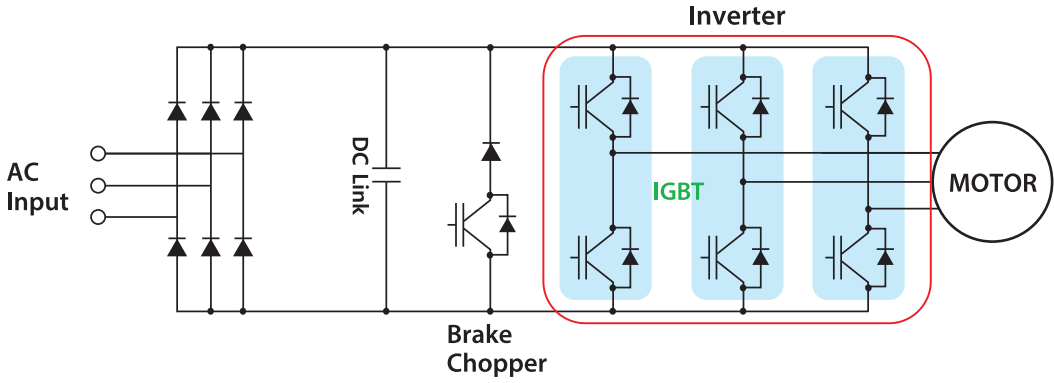


Target Application	Target Device
	• Discrete IGBT : 600~1200V / FRD : 200~1200V • Module IGBT : 600~1200V / FRD : 400~1200V

APPLICATION

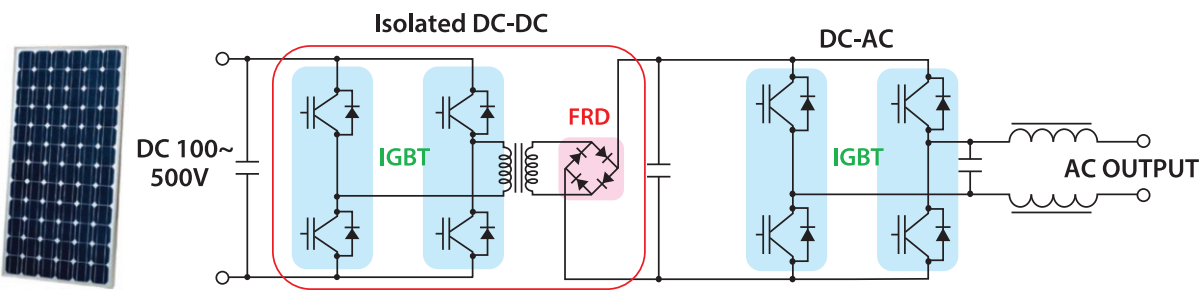
INDUSTRIAL

• Inverter (Motor Drives)



Target Application	Target Device
	• Discrete IGBT : 600~1200V  • Module IGBT : 600~1200V 

• Solar Inverter

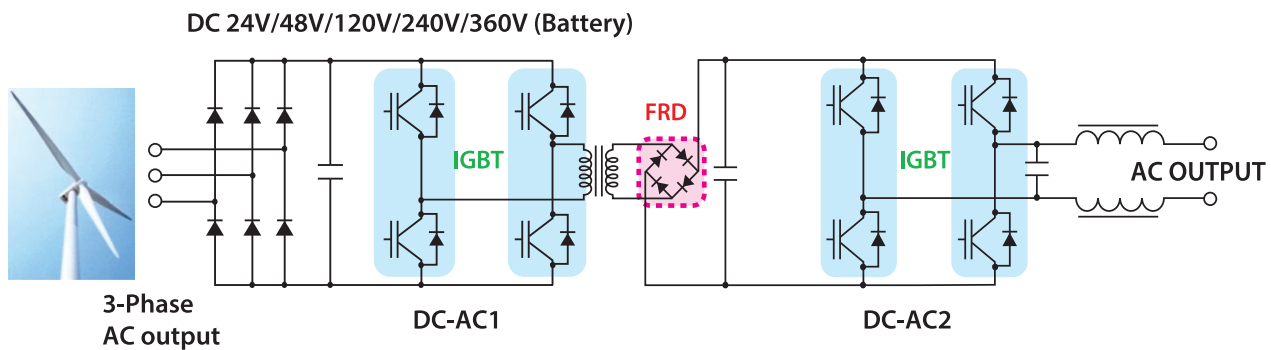


Target Application	Target Device
	• Discrete IGBT : 600~1200V / FRD : 200~1200V  • Module IGBT : 600~1200V / FRD : 400~1200V 

APPLICATION

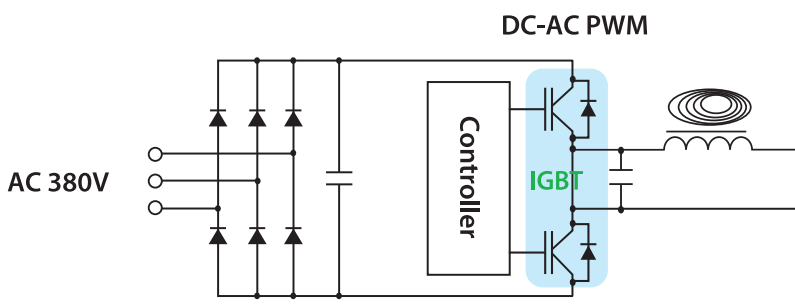
INDUSTRIAL

• Wind Power Inverter



Target Application	Target Device
	• Discrete IGBT : 600~1200V / FRD : 200~1200V  • Module IGBT : 600~1200V / FRD : 400~1200V 

• Induction Heater



Target Application	Target Device
 Industrial IH Commercial IH	• Discrete IGBT : 600~1200V / FRD : 200~1200V  • Module IGBT : 600~1200V / FRD : 400~1200V 



MEMO

Authentication of Merit

SEMIHOW CO., LTD.

*This is to verify that the above corporation
has been deemed a Promising Small and
Medium-sized Enterprise by the Gyeonggi
Provincial Government*

Period of Validity : 01 September 2011 ~ 31 August 2016

Governor of Gyeonggi Province

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