



**THE DATASHEET OF  
IKW20N60TFKSA1**





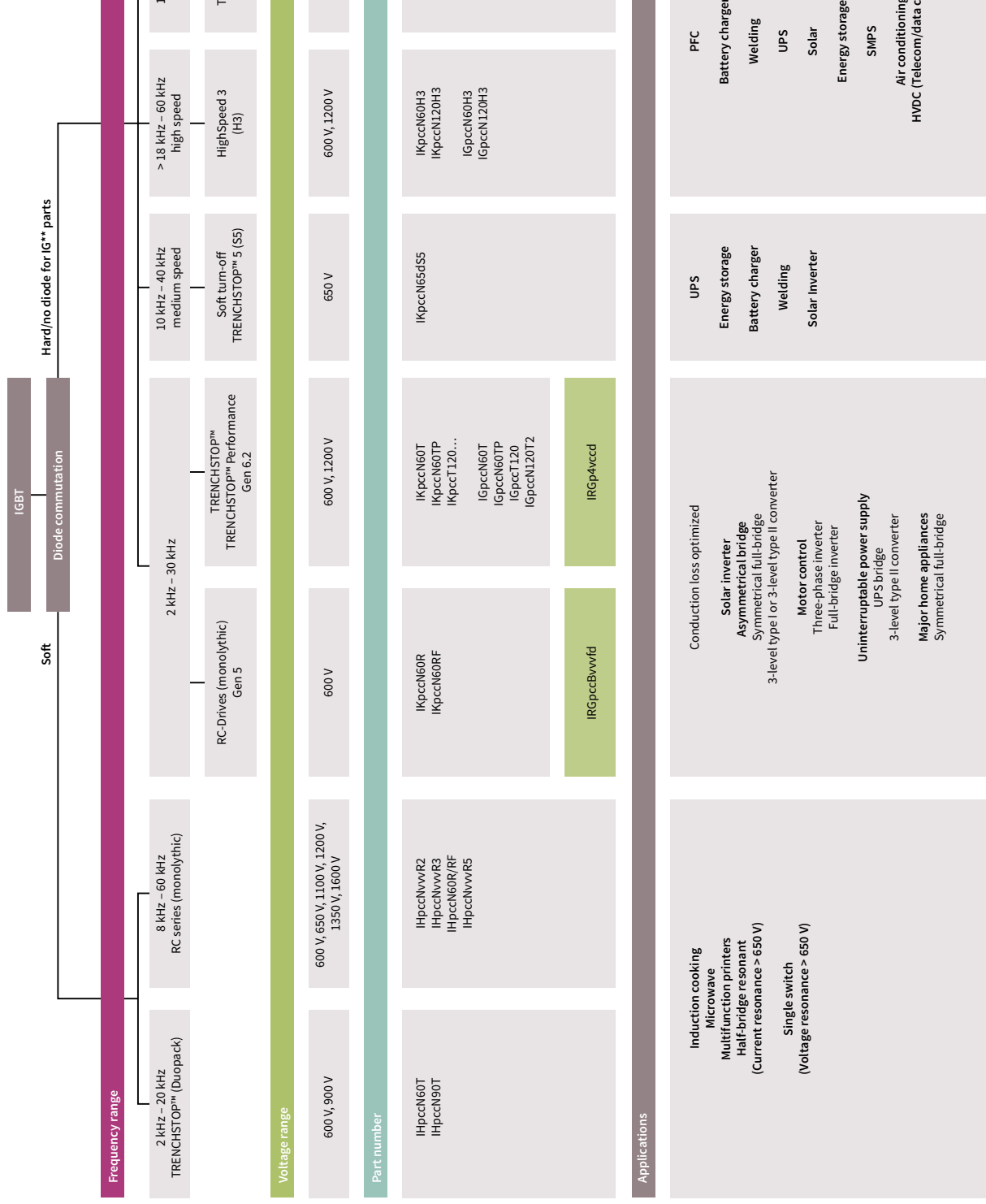
# IGBT Selection Guide

Common IGBT applications and topologies



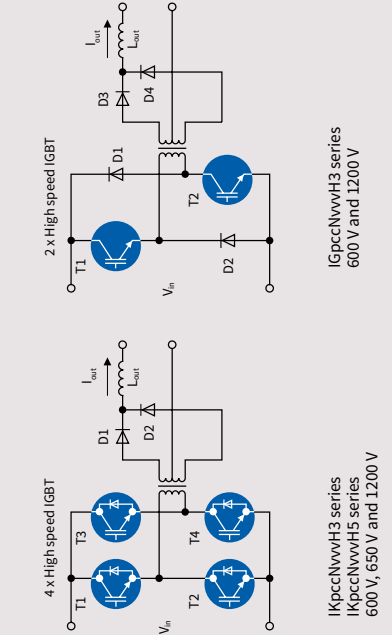
[www.infineon.com/igbt](http://www.infineon.com/igbt)

# IGBT selection tree

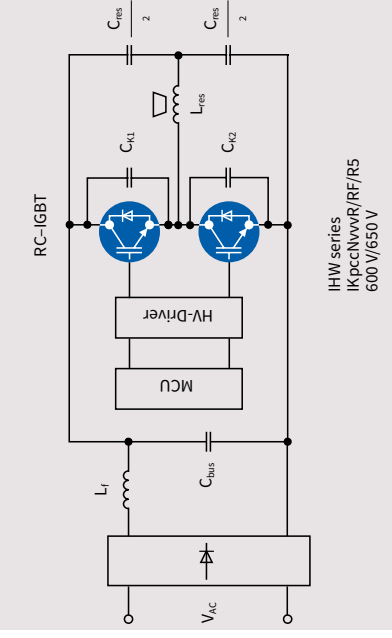


# Common IGBT applications and topologies

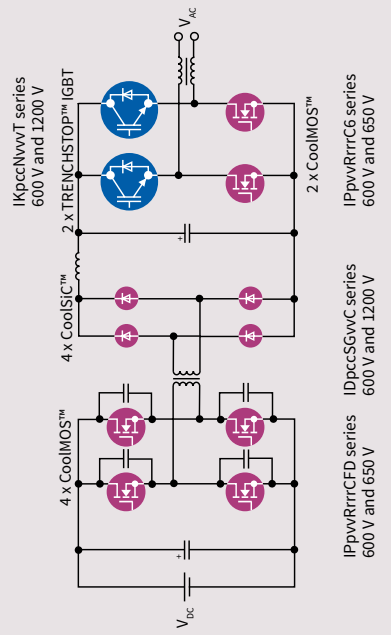
**Full-bridge/two transistor forward: welding inverter**



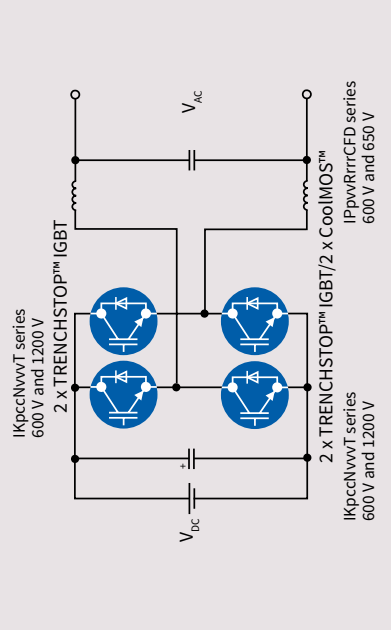
**Half-bridge: induction heating inverter (current resonance)**



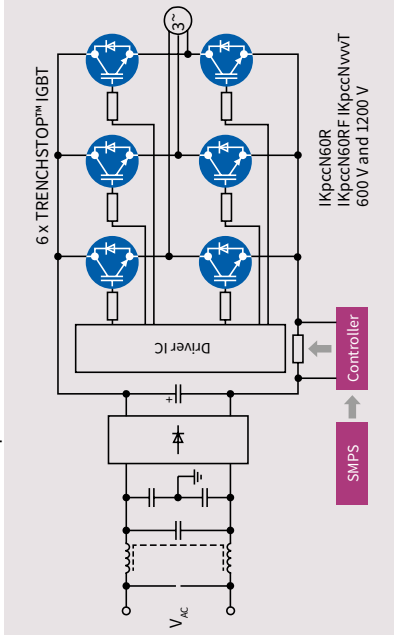
**Asymmetrical full-bridge: solar inverter (phase-shift and asymmetrical full-bridge)**



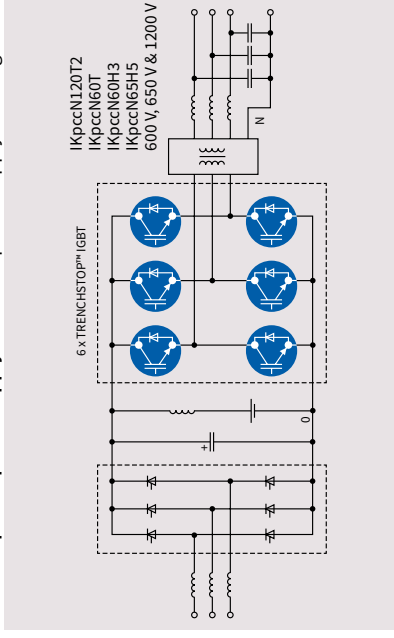
**Symmetrical full-bridge: solar inverter (symmetrical full-bridge)**



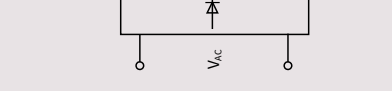
**Motor control: three-phase motor control**



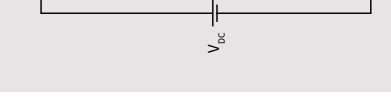
**Uninterruptable power supply: universal power supply b6-bridge**



**Single swi**



**Three leve**



## IGBT with anti-parallel diode

Product type	$V_{CE(sat)}$ [V]	Diode	Switching frequency [F]	Package	Switching Hard/Soft	Series	$I_{C(max)}$ at 100° [A]	$V_{CE(sat)}$ (typ) at 25° [V]
IKW20N60H3	600	Y	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	20	1.95
IKB20N60H3	600	Y	18 kHz – 60 kHz	TO-263	Hard	HighSpeed 3	20	1.95
IKP20N60H3	600	Y	18 kHz – 60 kHz	TO-220	Hard	HighSpeed 3	20	1.95
IKW30N60H3	600	Y	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	30	1.95
IKW40N60H3	600	Y	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	40	1.95
IKW50N60H3	600	Y	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	50	1.85
IKW60N60H3	600	Y	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	60	1.85
IKW75N60H3	600	Y	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	75	1.85
IKW15N120H3	1200	Y	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	15	2.05
IKW25N120H3	1200	Y	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	25	2.05
IKW40N120H3	1200	Y	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	40	2.05
IKD04N60R	600	Y	2 Hz – 4 kHz	TO-252	Hard	RC-Drives	4	1.65
IKD06N60R	600	Y	2 Hz – 4 kHz	TO-252	Hard	RC-Drives	6	1.65
IKD10N60R	600	Y	2 Hz – 4 kHz	TO-252	Hard	RC-Drives	10	1.65
IKD15N60R	600	Y	2 Hz – 4 kHz	TO-252	Hard	RC-Drives	15	1.65
IKW30N65WR5	650	Y	>18 kHz – 60 kHz	TO-247	Hard	RC TRENCHSTOP™ 5	30	1.40
IKW40N65WR5	650	Y	>18 kHz – 60 kHz	TO-247	Hard	RC TRENCHSTOP™ 5	40	1.40
IKW50N65WR5	650	Y	>18 kHz – 60 kHz	TO-247	Hard	RC TRENCHSTOP™ 5	50	1.40
IKD03N60RF	600	Y	4 kHz – 30 kHz	TO-252	Hard	RC-Drives Fast	2.5	2.2
IKD04N60RF	600	Y	4 kHz – 30 kHz	TO-252	Hard	RC-Drives Fast	4	2.2
IKD06N60RF	600	Y	4 kHz – 30 kHz	TO-252	Hard	RC-Drives Fast	6	2.2
IKD10N60RF	600	Y	4 kHz – 30 kHz	TO-252	Hard	RC-Drives Fast	10	2.2
IKD15N60RF	600	Y	4 kHz – 30 kHz	TO-252	Hard	RC-Drives Fast	15	2.2
IHW40N60R	600	Y	8 kHz – 40 kHz	TO-247	Soft	RC Soft Switching	40	1.65
IHW40N60RF	600	Y	18 kHz – 60 kHz	TO-247	Soft	RC Fast Soft Switching	40	1.85
IHW20N65R5	650	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	20	1.35
IHW40N65R5	650	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	40	1.35
IHW50N65R5	650	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	50	1.35
IHW30N110R3	1100	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	30	1.55
IHW15N120R3	1200	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	15	1.48
IHW20N120R3	1200	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	20	1.48
IHW20N120R5	1200	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	20	1.55
IHW25N120R2	1200	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	25	1.6
IHW30N120R3	1200	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	30	1.55
IHW30N120R2	1200	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	30	1.65
IHW40T120	1200	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	40	1.8
IHW40N120R3	1200	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	40	1.55
IHW20N135R3	1350	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	20	1.6
IHW20N135R5	1350	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	20	1.65
IHW30N135R3	1350	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	30	1.65
IHW40N135R3	1350	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	40	1.65
IHW30N160R2	1600	Y	8 kHz – 60 kHz	TO-247	Soft	RC Soft Switching	30	1.8
IKP04N60T	600	Y	2 kHz – 20 kHz	TO-220	Hard	TRENCHSTOP™	4	1.5

IKB06N60T	600	Y	2 kHz – 20 kHz	TO-263	Hard	TRENCHSTOP™	6	1.5
IKP06N60T	600	Y	2 kHz – 20 kHz	TO-220	Hard	TRENCHSTOP™	6	1.5
IKA06N60T	600	Y	2 kHz – 20 kHz	TO-220 FullPAK	Hard	TRENCHSTOP™	6.2	1.5
IKA10N60T	600	Y	2 kHz – 20 kHz	TO-220 FullPAK	Hard	TRENCHSTOP™	7.2	1.5
IKA15N60T	600	Y	2 kHz – 20 kHz	TO-220 FullPAK	Hard	TRENCHSTOP™	8.9	1.5
IKP10N60T	600	Y	2 kHz – 20 kHz	TO-220	Hard	TRENCHSTOP™	18	1.5
IKB10N60T	600	Y	2 kHz – 20 kHz	TO-263	Hard	TRENCHSTOP™	18	1.5
IKB15N60T	600	Y	2 kHz – 20 kHz	TO-263	Hard	TRENCHSTOP™	23	1.5
IKP15N60T	600	Y	2 kHz – 20 kHz	TO-220	Hard	TRENCHSTOP™	23	1.5
IKW20N60T	600	Y	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	20	1.5
IKB20N60T	600	Y	2 kHz – 20 kHz	TO-263	Hard	TRENCHSTOP™	20	1.5
IKP20N60T	600	Y	2 kHz – 20 kHz	TO-220	Hard	TRENCHSTOP™	28	1.5
IHW30N60T	600	Y	2 kHz – 20 kHz	TO-247	Soft	TRENCHSTOP™	30	1.5
IKW30N60T	600	Y	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	39	1.5
IHW40T60	600	Y	2 kHz – 20 kHz	TO-247	Soft	TRENCHSTOP™	40	1.55
IKW50N60T	600	Y	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	50	1.5
IKW75N60T	600	Y	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	75	1.5
IKQ100N60T	600	Y	2 kHz – 20 kHz	TO-247PLUS	Hard	TRENCHSTOP™	100	1.5
IKQ120N60T	600	Y	2 kHz – 20 kHz	TO-247PLUS	Hard	TRENCHSTOP™	120	1.5
IKW08T120	1200	Y	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	8	1.7
IKW15T120	1200	Y	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	15	1.7
IKW25T120	1200	Y	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	25	1.7
IKW40T120	1200	Y	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	40	1.7
IKW15N120T2	1200	Y	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™ 2	15	1.7
IKW25N120T2	1200	Y	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™ 2	25	1.7
IKW40N120T2	1200	Y	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™ 2	40	1.75
IKA08N65F5/H5	650	Y	30 kHz – 120 kHz	TO-220 FullPAK	Hard	TRENCHSTOP™ 5	6.8	1.6/1.65
IKA15N65F5/H5	650	Y	30 kHz – 120 kHz	TO-220 FullPAK	Hard	TRENCHSTOP™ 5	8.5	1.6/1.65
IKP08N65F5/H5	650	Y	30 kHz – 120 kHz	TO-220	Hard	TRENCHSTOP™ 5	11	1.6/1.65
IKP15N65F5/H5	650	Y	30 kHz – 120 kHz	TO-220	Hard	TRENCHSTOP™ 5	18	1.6/1.65
IKP20N65F5/H5	650	Y	30 kHz – 120 kHz	TO-220	Hard	TRENCHSTOP™ 5	21	1.6/1.65
IKP30N65F5/H5	650	Y	30 kHz – 120 kHz	TO-220	Hard	TRENCHSTOP™ 5	35	1.6/1.65
IKP40N65F5/H5	650	Y	30 kHz – 120 kHz	TO-220	Hard	TRENCHSTOP™ 5	46	1.6/1.65
IKW40N65F5/H5	650	Y	30 kHz – 120 kHz	TO-247	Hard	TRENCHSTOP™ 5	46	1.6/1.65
IKW50N65F5/H5	650	Y	30 kHz – 120 kHz	TO-247	Hard	TRENCHSTOP™ 5	56	1.6/1.65
IKW50N65EH5	650	Y	30 kHz – 100 kHz	TO-247	Hard	TRENCHSTOP™ 5	50	1.65
IKW75N65EH5	650	Y	30 kHz – 100 kHz	TO-247	Hard	TRENCHSTOP™ 5	75	1.65
IKZ50N65NH5	650	Y	30 kHz – 100 kHz	TO-247 4pin	Hard	TRENCHSTOP™ 5	50	1.65
IKZ50N65EH5	650	Y	30 kHz – 100 kHz	TO-247 4pin	Hard	TRENCHSTOP™ 5	50	1.65
IKZ75N65NH5	650	Y	30 kHz – 100 kHz	TO-247 4pin	Hard	TRENCHSTOP™ 5	75	1.76
IKZ75N65EH5	650	Y	30 kHz – 100 kHz	TO-247 4pin	Hard	TRENCHSTOP™ 5	75	1.76
IKW30N65ES5	650	Y	10 kHz – 40 kHz	TO-247	Hard	TRENCHSTOP™ 5	39.5	1.35
IKW40N65ES5	650	Y	10 kHz – 40 kHz	TO-247	Hard	TRENCHSTOP™ 5	50	1.35
IKW50N65ES5	650	Y	10 kHz – 40 kHz	TO-247	Hard	TRENCHSTOP™ 5	60.5	1.35
IKW75N65ES5	650	Y	10 kHz – 40 kHz	TO-247	Hard	TRENCHSTOP™ 5	80	1.42
IKW30N65NL5	650	Y	50 Hz – 20 kHz	TO-247	Hard	TRENCHSTOP™ 5	62	1.05
IKW30N65EL5	650	Y	50 Hz – 20 kHz	TO-247	Hard	TRENCHSTOP™ 5	62	1.05
IKW75N65EL5	650	Y	50 Hz – 20 kHz	TO-247	Hard	TRENCHSTOP™ 5	80	1.10
IKZ75N65EL5	650	Y	50 Hz – 20 kHz	TO-247 4pin	Hard	TRENCHSTOP™ 5	100	1.10

## IGBT without anti-parallel diode

Product type	$V_{CE(max)}$ [V]	Diode	Switching frequency [F]	Package	Switching Hard/Soft	Series	$I_{C(max)}$ at 100° [A]	$V_{CE(sat)}$ (typ) at 25° [V]
IGA30N60H3	600	N	18 kHz – 60 kHz	TO-220 FullPAK	Hard	HighSpeed 3	11	1.95
IGB20N60H3	600	N	18 kHz – 60 kHz	TO-263	Hard	HighSpeed 3	20	1.95
IGP20N60H3	600	N	18 kHz – 60 kHz	TO-220	Hard	HighSpeed 3	20	1.95
IGW20N60H3	600	N	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	20	1.95
IGP30N60H3	600	N	18 kHz – 60 kHz	TO-220	Hard	HighSpeed 3	30	1.95
IGB30N60H3	600	N	18 kHz – 60 kHz	TO-263	Hard	HighSpeed 3	30	1.95
IGW30N60H3	600	N	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	30	1.95
IGW40N60H3	600	N	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	40	1.95
IGW50N60H3	600	N	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	50	1.85
IGW60N60H3	600	N	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	60	1.85
IGW75N60H3	600	N	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	75	1.85
IGW100N60H3	600	N	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	120	1.85
IGW15N120H3	1200	N	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	15	2.05
IGW25N120H3	1200	N	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	25	2.05
IGW40N120H3	1200	N	18 kHz – 60 kHz	TO-247	Hard	HighSpeed 3	40	2.05
IGD06N60T	600	N	2 kHz – 20 kHz	TO-252	Hard	TRENCHSTOP™	6	1.5
IGP06N60T	600	N	2 kHz – 20 kHz	TO-220	Hard	TRENCHSTOP™	6	1.5
IGB10N60T	600	N	2 kHz – 20 kHz	TO-263	Hard	TRENCHSTOP™	18	1.5
IGP10N60T	600	N	2 kHz – 20 kHz	TO-220	Hard	TRENCHSTOP™	18	1.5
IGB15N60T	600	N	2 kHz – 20 kHz	TO-263	Hard	TRENCHSTOP™	23	1.5
IGP15N60T	600	N	2 kHz – 20 kHz	TO-220	Hard	TRENCHSTOP™	23	1.5
IGB30N60T	600	N	2 kHz – 20 kHz	TO-263	Hard	TRENCHSTOP™	39	1.5
IGW30N60T	600	N	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	39	1.5
IGB50N60T	600	N	2 kHz – 20 kHz	TO-263	Hard	TRENCHSTOP™	64	1.5
IGP50N60T	600	N	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	64	1.5
IGW50N60T	600	N	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	64	1.5
IGW75N60T	600	N	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	75	1.5
IGW15T120	1200	N	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	15	1.7
IGW25T120	1200	N	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	25	1.7
IGW40T120	1200	N	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	40	1.7
IGW60T120	1200	N	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	60	1.9
IGW08T120	1200	N	2 kHz – 20 kHz	TO-247	Hard	TRENCHSTOP™	8	1.7
IGP20N65F5/H5	650	N	30 kHz – 120 kHz	TO-220	Hard	TRENCHSTOP™ 5	21	1.6/1.65
IGP40N65F5/H5	650	N	30 kHz – 120 kHz	TO-220	Hard	TRENCHSTOP™ 5	46	1.6/1.65
IGW40N65F5/H5	650	N	30 kHz – 120 kHz	TO-247	Hard	TRENCHSTOP™ 5	46	1.6/1.65
IGW50N65F5/H5	650	N	30 kHz – 120 kHz	TO-247	Hard	TRENCHSTOP™ 5	56	1.6/1.65
IGW75N65H5	650	N	30 kHz – 100 kHz	TO-247	Hard	TRENCHSTOP™ 5	75	1.65
IGZ50N65H5	650	N	30 kHz – 100 kHz	TO-247 4pin	Hard	TRENCHSTOP™ 5	54	1.65
IGZ75N65H5	650	N	30 kHz – 100 kHz	TO-247 4pin	Hard	TRENCHSTOP™ 5	75	1.65
IGZ100N65H5	650	N	30 kHz – 100 kHz	TO-247 4pin	Hard	TRENCHSTOP™ 5	101	1.65
IGW30N65L5	650	N	50 Hz – 20 kHz	TO-247	Hard	TRENCHSTOP™ 5	62	1.05
IGW30N60TP	600	N	2 kHz – 30 kHz	TO-247	Hard	TRENCHSTOP™ Performance	38	1.60

IGW40N60TP	600	N	2 kHz – 30 kHz	TO-247	Hard	TRENCHSTOP™ Performance	48	1.60
IGW50N60TP	600	N	2 kHz – 30 kHz	TO-247	Hard	TRENCHSTOP™ Performance	61	1.60
IKW30N60DTP	600	Y	2 kHz – 30 kHz	TO-247	Hard	TRENCHSTOP™ Performance	38	1.60
IKW40N60DTP	600	Y	2 kHz – 30 kHz	TO-247	Hard	TRENCHSTOP™ Performance	48	1.60
IKW50N60DTP	600	Y	2 kHz – 30 kHz	TO-247	Hard	TRENCHSTOP™ Performance	61	1.60

## Gen 5 and Gen 6.2 Discrete IGBTs

Product type	$V_{CE(max)}$ [V]	Diode	Switching frequency [F]	Package	Switching Hard/Soft	Series	$I_{C(max)}$ at 100° [A]	$V_{CE(sat)}$ (typ) [V]
IRGR2B60KD	600	Y	8 kHz – 30 kHz	DPAK	Hard	Gen 5	3.7	1.83
IRGR3B60KD2	600	Y	8 kHz – 30 kHz	DPAK	Hard	Gen 5	4.2	1.9
IRGS4B60K	600	N	8 kHz – 30 kHz	D <sup>2</sup> PAK	Hard	Gen 5	6.8	2.1
IRGB4B60K	600	N	8 kHz – 30 kHz	TO-220	Hard	Gen 5	6.8	2.1
IRGS6B60K	600	N	8 kHz – 30 kHz	D <sup>2</sup> PAK	Hard	Gen 5	7	1.8
IRGB6B60K	600	N	8 kHz – 30 kHz	TO-220	Hard	Gen 5	7	1.8
IRGSL6B60KD	600	Y	8 kHz – 30 kHz	TO-262, TO-251	Hard	Gen 5	7	1.8
IRGS6B60KD	600	Y	8 kHz – 30 kHz	D <sup>2</sup> PAK	Hard	Gen 5	7	1.8
IRGB6B60KD	600	Y	8 kHz – 30 kHz	TO-220	Hard	Gen 5	7	1.8
IRGIB6B60KD	600	Y	8 kHz – 30 kHz	TO-220 FullPAK	Hard	Gen 5	7	1.8
IRGSL4B60KD1	600	Y	8 kHz – 30 kHz	TO-262, TO-251	Hard	Gen 5	7.6	2.1
IRGS4B60KD1	600	Y	8 kHz – 30 kHz	D <sup>2</sup> PAK	Hard	Gen 5	7.6	2.1
IRGS4B60KD1	600	Y	8 kHz – 30 kHz	TO-220	Hard	Gen 5	7.6	2.1
IRGR4607D	600	Y	8 kHz – 30 kHz	DPAK	Hard	Gen 6.2	7	1.75
IRGS4607D	600	Y	8 kHz – 30 kHz	D <sup>2</sup> PAK	Hard	Gen 6.2	7	1.75
IRGB4607D	600	Y	8 kHz – 30 kHz	TO-220	Hard	Gen 6.2	7	1.75
IRGB4607D*	600	Y	8 kHz – 30 kHz	TO-220 FullPAK	Hard	Gen 6.2	7	1.75
IRGR4610D	600	Y	8 kHz – 30 kHz	DPAK	Hard	Gen 6.2	10	1.7
IRGS4610D	600	Y	8 kHz – 30 kHz	D <sup>2</sup> PAK	Hard	Gen 6.2	10	1.7
IRGB4610D	600	Y	8 kHz – 30 kHz	TO-220	Hard	Gen 6.2	10	1.7
IRGIB4610D*	600	Y	8 kHz – 30 kHz	TO-220 FullPAK	Hard	Gen 6.2	10	1.7
IRGS4615D	600	Y	8 kHz – 30 kHz	D <sup>2</sup> PAK	Hard	Gen 6.2	15	1.55
IRGB4615D	600	Y	8 kHz – 30 kHz	TO-220	Hard	Gen 6.2	15	1.55
IRGIB4615D*	600	Y	8 kHz – 30 kHz	TO-220 FullPAK	Hard	Gen 6.2	15	1.55
IRGS4620D	600	Y	8 kHz – 30 kHz	D <sup>2</sup> PAK	Hard	Gen 6.2	20	1.55
IRGB4620D	600	Y	8 kHz – 30 kHz	TO-220	Hard	Gen 6.2	20	1.55
IRGIB4620D	600	Y	8 kHz – 30 kHz	TO-220 FullPAK	Hard	Gen 6.2	20	1.55
IRGP4620D	600	Y	8 kHz – 30 kHz	TO-247	Hard	Gen 6.2	20	1.55
IRGP4620D-E	600	Y	8 kHz – 30 kHz	TO-247 (Long Lead)	Hard	Gen 6.2	20	1.55
IRGS4630D	600	Y	8 kHz – 30 kHz	D <sup>2</sup> PAK	Hard	Gen 6.2	30	1.65
IRGB4630D	600	Y	8 kHz – 30 kHz	TO-220	Hard	Gen 6.2	30	1.65
IRGIB4630D	600	Y	8 kHz – 30 kHz	TO-220 FullPAK	Hard	Gen 6.2	30	1.65
IRGP4630D	600	Y	8 kHz – 30 kHz	TO-247	Hard	Gen 6.2	30	1.65
IRGP4630D-E	600	Y	8 kHz – 30 kHz	TO-247 (Long Lead)	Hard	Gen 6.2	30	1.65
IRGS4640D	600	Y	8 kHz – 30 kHz	D <sup>2</sup> PAK	Hard	Gen 6.2	40	1.6
IRGB4640D	600	Y	8 kHz – 30 kHz	TO-220	Hard	Gen 6.2	40	1.6

Switching Frequency [F]	Package	Switching Hard/Soft	Series	$I_{\text{RMS}}$ at 100° [A]	$V_{\text{CE(EM)}}$ (typ) at 25° [V]	$E_{\text{off}}$ (typ) at 25° [mJ]	$E_{\text{on}}$ (typ) at 25° [mJ]	$Q_{\text{r}}$ (typ) at 25° [nC]
30 KHz	TO-220 FullPAK	Hard	Gen 6.2	40	1.6	0.115	0.6	-
30 KHz	TO-247	Hard	Gen 6.2	40	1.6	0.115	0.6	-
30 KHz	TO-247 (Long Lead)	Hard	Gen 6.2	40	1.6	0.115	0.6	-
30 KHz	TO-247	Hard	Gen 6.2	40	1.6	0.1	0.6	-
30 KHz	TO-247 (Long Lead)	Hard	Gen 6.2	40	1.6	0.1	0.6	-
30 KHz	TO-247	Hard	Gen 6.2	50	1.6	0.39	0.632	-
30 KHz	TO-247 (Long Lead)	Hard	Gen 6.2	50	1.6	0.39	0.632	-
30 KHz	TO-247	Hard	Gen 6.2	50	1.6	0.39	0.632	-
30 KHz	TO-247 (Long Lead)	Hard	Gen 6.2	60	1.65	0.625	1.275	-
30 KHz	TO-247	Hard	Gen 6.2	60	1.65	0.625	1.275	-
30 KHz	TO-247 (Long Lead)	Hard	Gen 6.2	90	1.7	2.465	2.155	-
30 KHz	TO-247	Hard	Gen 6.2	90	1.7	2.465	2.155	-
30 KHz	TO-247 (Long Lead)	Hard	Gen 6.2	160	1.7	5.75	3.43	-
30 KHz	TO-247PLUS (Super247)	Hard	Gen 6.2	160	1.7	4.47	3.43	-
30 KHz	D <sup>2</sup> PAK	Hard	Gen 6.2	15	1.55	0.2	0.09	-
30 KHz	TO-220	Hard	Gen 6.2	15	1.55	0.2	0.09	-
30 KHz	TO-247	Hard	Gen 6.2	40	1.6	0.52	0.24	-
30 KHz	TO-247 (Long Lead)	Hard	Gen 6.2	40	1.6	0.52	0.24	-
30 KHz	TO-247	Hard	Gen 6.2	50	1.7	1.3	0.5	-
30 KHz	TO-247 (Long Lead)	Hard	Gen 6.2	50	1.7	1.3	0.5	-
30 KHz	TO-247	Hard	Gen 6.2	60	1.65	1.7	1	-
30 KHz	TO-247 (Long Lead)	Hard	Gen 6.2	60	1.65	1.7	1	-
30 KHz	TO-247	Hard	Gen 6.2	60	1.65	1.7	1	-
30 KHz	TO-247 (Long Lead)	Hard	Gen 6.2	60	1.65	1.7	1	-
30 KHz	TO-247	Hard	Gen 6.2	90	1.7	2.5	2.2	-
30 KHz	TO-247 (Long Lead)	Hard	Gen 6.2	90	1.7	2.5	2.2	-
30 KHz	TO-247	Hard	Gen 6.2	90	1.7	2.5	2.2	-
30 KHz	TO-247 (Long Lead)	Hard	Gen 6.2	90	1.7	2.5	2.2	-
30 KHz	TO-247PLUS (Super247)	Hard	Gen 6.2	160	1.7	-	-	-

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