

Selection Guide

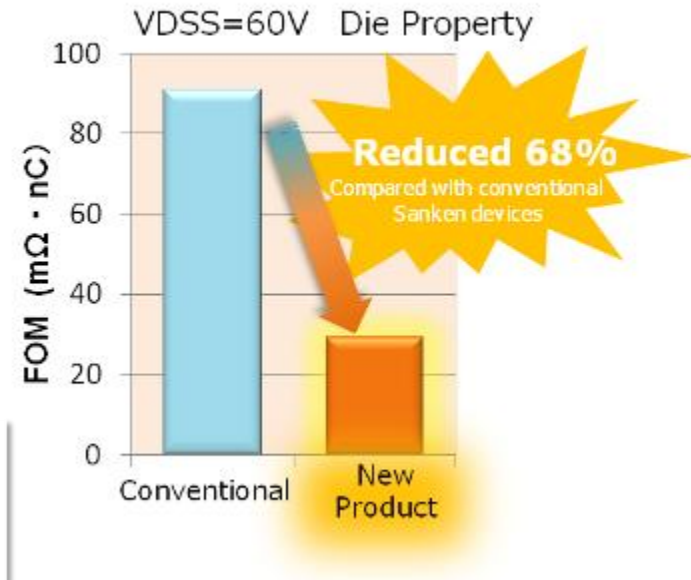
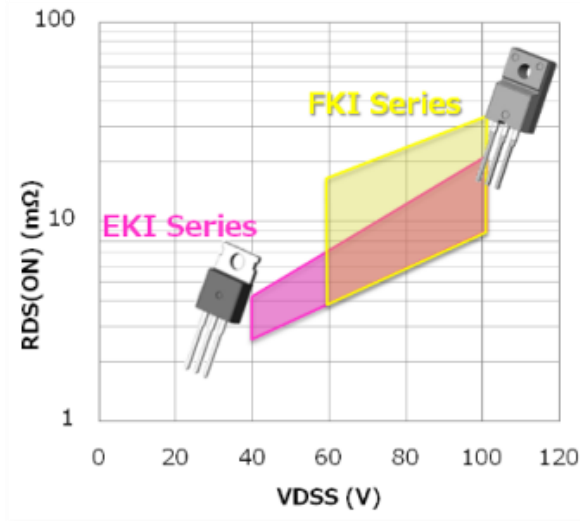
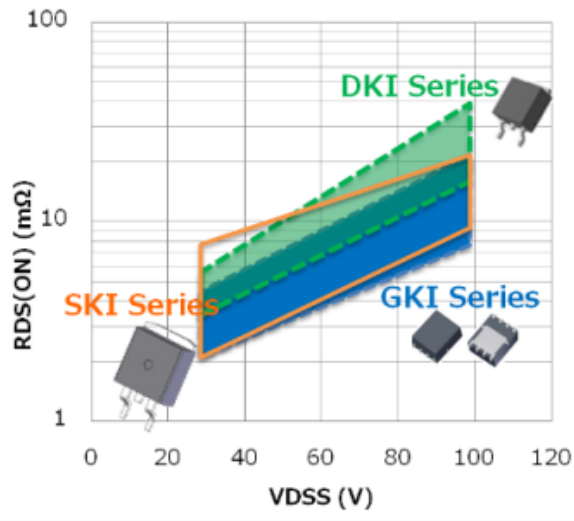
- Low On-Resistance Nch Power MOSFET
($V_{DSS} = 30V, 40V, 60V, 75V, 100V$)

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Make sure that this is the latest revision of the document before
use. Please check the details of the product by data sheet.

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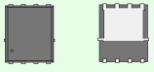
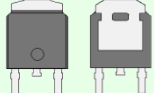
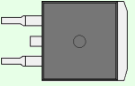
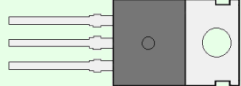
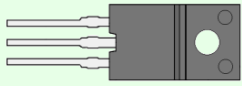
GKI/ DKI/ SKI/ EKI/ FKI Series

- ◆ Low on resistance and low gate threshold combined to realize improved switching performance(FOM*).
Low loss MOSFET, creating circuits with improved efficiency.
High frequency operation which enables the downsizing of the coil.
- ◆ Supports circuits with various input/output voltages.
($V_{DSS} = 30V, 40V, 60V, 75V, 100V$)
- ◆ Space saving design to support various needs, from thin types to high power type applications.
(DFN5×6, TO252, TO263, TO220, TO220F)
- ◆ 4.5V gate drive is possible
Supports various applications, including DC/DC converters, AC/DC power supply (secondary-side rectification), etc.



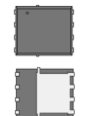
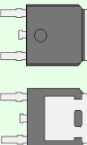
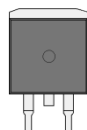
*FOM(Figure of Merit)= $R_{DS(ON)} \times Q_{gd}$

Selection Guide

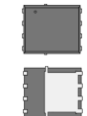
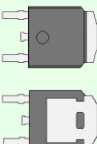
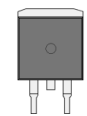
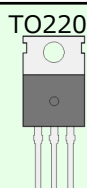
V _{DSS}	DFN5×6 			TO252 			TO263 			TO220 			TO220F 		
	Products	I _D (A)	R _{ON} (mΩ)	Products	I _D (A)	R _{ON} (mΩ)	Products	I _D (A)	R _{ON} (mΩ)	Products	I _D (A)	R _{ON} (mΩ)	Products	I _D (A)	R _{ON} (mΩ)
30V	GKI 03026	40	2.2	DKI 03038	48	3.4	SKI 03021	85	2.1						
	GKI 03039	26	3.2	DKI 03062	48	5.2	SKI 03036	80	3.2						
	GKI 03061	26	5.2	DKI 03082	29	7.1	SKI 03063	40	5.5						
	GKI 03080	26	6.9				SKI 03087	40	7.6						
40V	GKI 04031	40	2.9	DKI 04035	48	3.3	SKI 04024	85	2.6	EKI 04027	85	2.6			
	GKI 04048	26	4.2	DKI 04046	48	4.3	SKI 04033	80	3.1	EKI 04036	80	3.1			
	GKI 04076	26	6.9	DKI 04077	47	6.9	SKI 04044	80	4.1	EKI 04047	80	4.1			
	GKI 04101	26	9.3	DKI 04103	29	9.5									
60V	GKI 06071	40	4.8	DKI 06075	48	5.3	SKI 06048	85	3.9	EKI 06051	85	3.9	FKI 06051	69	3.9
	GKI 06109	26	7.0	DKI 06108	47	7.2	SKI 06073	78	5.1	EKI 06075	78	5.1	FKI 06075	52	5.1
	GKI 06185	26	11.8	DKI 06186	31	11.8	SKI 06106	57	7.0	EKI 06108	57	7.0	FKI 06108	39	7.0
	GKI 06259	22	16.5	DKI 06261	25	16.7							FKI 06190	30	12.1
														FKI 06269	24
75V	GKI 07113	40	7.0				SKI 07074	85	5.3	EKI 07076	85	5.3	FKI 07076	55	5.3
	GKI 07174	26	10.4				SKI 07114	62	7.2	EKI 07117	62	7.2	FKI 07117	42	7.2
	GKI 07301	26	17.7				SKI 07171	46	10.4	EKI 07174	46	10.4	FKI 07174	31	10.4
100V	GKI 10194	40	12.9	DKI 10299	28	20.4	SKI 10123	66	8.8	EKI 10126	66	8.8	FKI 10126	41	8.8
	GKI 10301	26	20.2	DKI 10526	19	34.4	SKI 10195	47	13.2	EKI 10198	47	13.2	FKI 10198	31	13.2
	GKI 10526	20	34.4	DKI 10751	15	50.4	SKI 10297	34	20.2	EKI 10300	34	20.2	FKI 10300	23	20.2
														FKI 10531	18

R_{ON} : Typical value at V_{GS}=10V

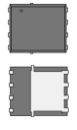

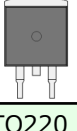
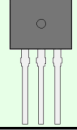
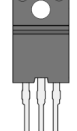
V_{DSS}=30V Lineup

Products	V _{DSS}	Package	V _{GS}	I _D	I _D pulse	V _{th}		R _{DS(ON)}		R _{DS(ON)}		C _{iss}	C _{oss}	Cr _{ss}	Q _g		Q _{gs}	Q _{gd}	t _{rr}
						Min.	Max.	V _{GS} =4.5V		V _{GS} =10V					V _{GS} =4.5V	V _{GS} =10V			
	(V)					(V)	(A)	(A)	(V)	(V)	Typ.	Max.	Typ.	Max.			(pF)	(pF)	(pF)
GKI03026	30		±20	40	80	1.0	2.5	2.9	4.4	2.2	3.0	4010	945	580	25.8	55.8	9.2	10.5	38.7
GKI03039	30		±20	26	51	1.0	2.5	4.3	6.0	3.2	4.0	2460	590	300	16.5	36.1	5.9	7.0	32.9
GKI03061	30		±20	26	51	1.0	2.5	7.2	10.5	5.2	6.5	1480	380	180	9.3	20.6	3.3	4.2	28.5
GKI03080	30		±20	26	51	1.0	2.5	9.8	13.0	6.9	8.5	1030	265	120	7.1	16.0	2.3	3.1	25.1
DKI03038	30		±20	48	96	1.0	2.5	4.5	6.2	3.4	4.2	2460	590	300	16.5	36.1	5.9	7.0	32.9
DKI03062	30		±20	48	96	1.0	2.5	7.2	10.5	5.2	6.5	1480	380	180	9.3	20.6	3.3	4.2	28.5
DKI03082	30		±20	29	58	1.0	2.5	10.0	13.2	7.1	8.8	1030	265	120	7.1	16.0	2.3	3.1	25.1
SKI03021	30		±20	85	170	1.0	2.5	2.5	3.3	2.1	2.6	6200	1430	920	42.3	91.1	15.1	16.7	43.9
SKI03036	30		±20	80	161	1.0	2.5	4.3	5.6	3.2	3.9	2460	590	300	16.5	36.1	5.9	7.0	32.9
SKI03063	30		±20	40	80	1.0	2.5	7.4	10.8	5.5	6.8	1480	380	180	9.3	20.6	3.3	4.2	28.5
SKI03087	30		±20	40	80	1.0	2.5	10.5	13.9	7.6	9.4	1030	265	120	7.1	16.0	2.3	3.1	25.1

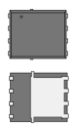
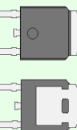
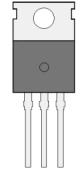
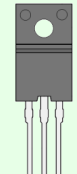
V_{DSS}=40V Lineup

Products	V _{DSS}	Package	V _{GS}	I _D	I _D pulse	V _{th}		R _{DS(ON)}		R _{DS(ON)}		C _{iss}	C _{oss}	C _{rss}	Q _g		Q _{gs}	Q _{gd}	t _{rr}
						Min.	Max.	V _{GS} =4.5V		V _{GS} =10V					V _{GS} =4.5V	V _{GS} =10V			
	(V)					(V)	(A)	(A)	(V)	(V)	Typ.	Max.	Typ.	Max.			(pF)	(pF)	(pF)
GKI04031	40		±20	40	80	1.0	2.5	3.7	5.5	2.9	3.9	3910	620	360	26.4	56.1	9.0	9.7	38.7
GKI04048	40		±20	26	51	1.0	2.5	5.4	7.5	4.2	5.4	2410	395	190	16.0	35.0	5.6	6.0	32.9
GKI04076	40		±20	26	51	1.0	2.5	9.1	13.3	6.9	8.9	1470	255	120	7.9	18.5	2.9	3.1	28.5
GKI04101	40		±20	26	51	1.0	2.5	12.6	16.6	9.3	11.6	990	180	71	5.1	13.3	1.9	2.0	25.1
DKI04035	40		±20	48	96	1.0	2.5	4.1	6.0	3.3	4.3	3910	620	360	26.4	56.1	9.0	9.7	38.7
DKI04046	40		±20	48	96	1.0	2.5	5.6	7.7	4.3	5.6	2410	395	190	16.0	35.0	5.6	6.0	32.9
DKI04077	40		±20	47	93	1.0	2.5	9.1	13.3	6.9	8.9	1470	255	120	7.9	18.5	2.9	3.1	28.5
DKI04103	40		±20	29	58	1.0	2.5	12.7	16.8	9.5	11.8	990	180	71	5.1	13.3	1.9	2.0	25.1
SKI04024	40		±20	85	170	1.0	2.5	3.1	4.0	2.6	3.2	6200	960	640	44.9	93.7	15.2	16.2	43.9
SKI04033	40		±20	80	161	1.0	2.5	3.9	5.7	3.1	3.9	3910	620	360	26.4	56.1	9.0	9.7	38.7
SKI04044	40		±20	80	161	1.0	2.5	5.4	7.0	4.1	5.2	2410	395	190	16.0	35.0	5.6	6.0	32.9
EKI04027	40		±20	85	170	1.0	2.5	3.1	4.0	2.6	3.2	6200	960	640	44.9	93.7	15.2	16.2	43.9
EKI04036	40		±20	80	161	1.0	2.5	3.9	5.7	3.1	3.9	3910	620	360	26.4	56.1	9.0	9.7	38.7
EKI04047	40		±20	80	161	1.0	2.5	5.4	7.0	4.1	5.2	2410	395	190	16.0	35.0	5.6	6.0	32.9

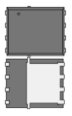

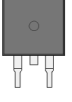
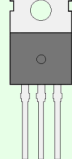
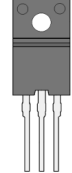
V_{DSS}=60V Lineup

Products	V _{DSS} (V)	Package	V _{GS} (V)	I _D (A)	I _D pulse (A)	V _{th}		R _{DS(ON)} V _{GS} =4.5V		R _{DS(ON)} V _{GS} =10V		C _{iss} (pF)	C _{oss} (pF)	C _{rss} (pF)	Q _g		Q _{gs} (nC)	Q _{gd} (nC)	t _{rr} (ns)
						Min.	Max.	Typ.	Max.	Typ.	Max.				V _{GS} =4.5V	V _{GS} =10V			
						(V)	(V)	(mΩ)	(mΩ)	(mΩ)	(mΩ)				(nC)	(nC)			
GKI06071	60	DFN5x6 	±20	40	80	1.0	2.5	5.8	8.1	4.8	6.5	3810	420	215	26.9	57.2	9.6	8.5	40.8
GKI06109	60		±20	26	51	1.0	2.5	8.6	11.8	7.0	9.5	2520	280	135	16.9	36.2	6.1	5.4	34.8
GKI06185	60		±20	26	51	1.0	2.5	14.4	21.1	11.8	16.3	1510	175	77	9.1	19.8	3.3	3.0	31.2
GKI06259	60		±20	22	43	1.0	2.5	20.4	26.8	16.5	21.7	1050	125	53	6.6	14.7	2.2	2.1	28.7
DKI06075	60	TO252 	±20	48	96	1.0	2.5	6.2	8.7	5.3	7.0	3810	420	215	26.9	57.2	9.6	8.5	40.8
DKI06108	60		±20	47	94	1.0	2.5	8.8	12.1	7.2	9.7	2520	280	135	16.9	36.2	6.1	5.4	34.8
DKI06186	60		±20	31	62	1.0	2.5	14.4	21.1	11.8	16.3	1510	175	77	9.1	19.8	3.3	3.0	31.2
DKI06261	60		±20	25	50	1.0	2.5	20.6	27.0	16.7	21.9	1050	125	53	6.6	14.7	2.2	2.1	28.7
SKI06048	60	TO263 	±20	85	170	1.0	2.5	4.5	5.8	3.9	4.9	6210	665	425	44.9	94.7	16.0	13.9	45.5
SKI06073	60		±20	78	156	1.0	2.5	6.0	8.4	5.1	6.6	3810	420	215	26.9	57.2	9.6	8.5	40.8
SKI06106	60		±20	57	114	1.0	2.5	8.6	11.2	7.0	9.2	2520	280	135	16.9	36.2	6.1	5.4	34.8
EKI06051	60	TO220 	±20	85	170	1.0	2.5	4.5	5.8	3.9	4.9	6210	665	425	44.9	94.7	16.0	13.9	45.5
EKI06075	60		±20	78	156	1.0	2.5	6.0	8.4	5.1	6.6	3810	420	215	26.9	57.2	9.6	8.5	40.8
EKI06108	60		±20	57	114	1.0	2.5	8.6	11.2	7.0	9.2	2520	280	135	16.9	36.2	6.1	5.4	34.8
FKI06051	60	TO220F 	±20	69	137	1.0	2.5	4.5	5.8	3.9	4.9	6210	665	425	44.9	94.7	16.0	13.9	45.5
FKI06075	60		±20	52	104	1.0	2.5	6.0	8.4	5.1	6.6	3810	420	215	26.9	57.2	9.6	8.5	40.8
FKI06108	60		±20	39	78	1.0	2.5	8.6	11.2	7.0	9.2	2520	280	135	16.9	36.2	6.1	5.4	34.8
FKI06190	60		±20	30	59	1.0	2.5	14.7	21.4	12.1	16.5	1510	175	77	9.1	19.8	3.3	3.0	31.2
FKI06269	60		±20	24	47	1.0	2.5	21.1	27.6	17.2	22.6	1050	125	53	6.6	14.7	2.2	2.1	28.7

V_{DSS}=75V Lineup

Products	V _{DSS}	Package	V _{GS}	I _D	I _D pulse	V _{th}		R _{DS(ON)}		R _{DS(ON)}		C _{iss}	C _{oss}	C _{rss}	Q _g		Q _{gs}	Q _{gd}	t _{rr}
						Min.	Max.	V _{GS} =4.5V		V _{GS} =10V					(V _{DS} =15V, V _{GS} =0V, f=1MHz)	V _{GS} = 4.5V			
	(V)					(V)	(A)	(A)	(V)	(V)	(mΩ)	(mΩ)	(mΩ)	(mΩ)		(pF)	(pF)	(pF)	(nC)
GKI07113	75	DFN5x6 	±20	40	80	1.0	2.5	8.0	10.9	7.0	9.5	4040	370	215	25.0	54.0	9.8	7.3	44.3
GKI07174	75		±20	26	51	1.0	2.5	12.1	16.7	10.4	14.5	2520	245	115	15.0	33.0	6.1	4.5	39.0
GKI07301	75		±20	26	51	1.0	2.5	20.4	29.9	17.7	25.5	1580	155	74	7.1	16.5	3.2	2.3	34.7
SKI07074	75	TO263 	±20	85	170	1.0	2.5	6.0	7.6	5.3	6.9	6340	575	365	42.9	91.6	16.5	12.4	48.4
SKI07114	75		±20	62	125	1.0	2.5	8.2	11.2	7.2	9.7	4040	370	215	25.0	54.0	9.8	7.3	44.3
SKI07171	75		±20	46	91	1.0	2.5	12.1	15.9	10.4	14.1	2520	245	115	15.0	33.0	6.1	4.5	39.0
EKI07076	75	TO220 	±20	85	170	1.0	2.5	6.0	7.6	5.3	6.9	6340	575	365	42.9	91.6	16.5	12.4	48.4
EKI07117	75		±20	62	125	1.0	2.5	8.2	11.2	7.2	9.7	4040	370	215	25.0	54.0	9.8	7.3	44.3
EKI07174	75		±20	46	91	1.0	2.5	12.1	15.9	10.4	14.1	2520	245	115	15.0	33.0	6.1	4.5	39.0
FKI07076	75	TO220F 	±20	55	110	1.0	2.5	6.0	7.6	5.3	6.9	6340	575	365	42.9	91.6	16.5	12.4	48.4
FKI07117	75		±20	42	83	1.0	2.5	8.2	11.2	7.2	9.7	4040	370	215	25.0	54.0	9.8	7.3	44.3
FKI07174	75		±20	31	62	1.0	2.5	12.1	15.9	10.4	14.1	2520	245	115	15.0	33.0	6.1	4.5	39.0

V_{DSS}=100V Lineup

Products	V _{DSS}	Package	V _{GS}	I _D	I _D pulse	V _{th}		R _{DS(ON)}		R _{DS(ON)}		C _{iss}	C _{oss}	C _{rss}	Q _g		Q _{gs}	Q _{gd}	t _{rr}
						Min.	Max.	V _{GS} =4.5V		V _{GS} =10V					(V _{DS} =15V, V _{GS} =0V, f=1MHz)				
	(V)					(V)	(A)	(A)	(V)	(V)	(mΩ)	(mΩ)	(mΩ)	(mΩ)	(pF)	(pF)	(pF)	(nC)	(nC)
GKI10194	100	DFN5x6 	±20	40	80	1.0	2.5	13.8	19.0	12.9	18.1	3990	300	160	27.1	57.7	10.1	7.5	49.2
GKI10301	100		±20	26	51	1.0	2.5	21.6	31.2	20.2	29.8	2540	195	88	16.9	36.5	6.4	4.8	44.6
GKI10526	100		±20	20	40	1.0	2.5	36.3	56.2	34.4	54.2	1530	125	51	9.0	19.9	3.6	2.6	40.7
DKI10299	100	TO252 	±20	28	57	1.0	2.5	21.8	31.4	20.4	30.0	2540	195	88	16.9	36.5	6.4	4.8	44.6
DKI10526	100		±20	19	37	1.0	2.5	36.3	56.2	34.4	54.2	1530	125	51	9.0	19.9	3.6	2.6	40.7
DKI10751	100		±20	15	30	1.0	2.5	53.0	73.6	50.4	72.6	1050	88	33	6.5	14.7	2.4	1.8	38.0
SKI10123	100	TO263 	±20	66	132	1.0	2.5	9.6	12.9	8.8	12.1	6420	465	280	45.2	95.6	16.6	12.4	54.6
SKI10195	100		±20	47	94	1.0	2.5	14.0	19.3	13.2	18.4	3990	300	160	27.1	57.7	10.1	7.5	49.2
SKI10297	100		±20	34	68	1.0	2.5	21.6	30.0	20.2	28.8	2540	195	88	16.9	36.5	6.4	4.8	44.6
EKI10126	100	TO220 	±20	66	132	1.0	2.5	9.6	12.9	8.8	12.1	6420	465	280	45.2	95.6	16.6	12.4	54.6
EKI10198	100		±20	47	94	1.0	2.5	14.0	19.3	13.2	18.4	3990	300	160	27.1	57.7	10.1	7.5	49.2
EKI10300	100		±20	34	68	1.0	2.5	21.6	30.0	20.2	28.8	2540	195	88	16.9	36.5	6.4	4.8	44.6
FKI10126	100	TO220F 	±20	41	82	1.0	2.5	9.6	12.9	8.8	12.1	6420	465	280	45.2	95.6	16.6	12.4	54.6
FKI10198	100		±20	31	62	1.0	2.5	14.0	19.3	13.2	18.4	3990	300	160	27.1	57.7	10.1	7.5	49.2
FKI10300	100		±20	23	47	1.0	2.5	21.6	30.0	20.2	28.8	2540	195	88	16.9	36.5	6.4	4.8	44.6
FKI10531	100		±20	18	35	1.0	2.5	36.5	56.5	34.7	54.5	1530	125	51	9.0	19.9	3.6	2.6	40.7

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