

DIII-H Series

(High Voltage Range, VDSS from 250V)

The DIII-H Series further expands Hitachi's line-up of advanced MOSFET devices. Recently, new additional high-voltage products to complement those of the low-voltage DIII-L Series. It has the following enhanced features:-

- High gate to source breakdown voltage
- Low 'ON- STATE' resistance, RDS(ON)

- Narrow threshold voltage, VTH
- Low input capacitance

The immediate advantage of a narrow VGS(OFF) voltage range is that engineers are released from the tiresome constraint of designing with 'sloppy' device parameters. Table 7 shows the current DIII high voltage of Power MOSFETs.

Table 7 : DIII-H Series Typical Characteristics

Package	Type Number	Absolute Maximum Ratings				Electrical Characteristics (typ.)					
		VDSS (V)	VGSS (V)	ID (A)	Pch * (W)	RDS(on) (Ω)		lyfsl (S) **	ton (ns)	toff (ns)	Ciss (pF)
						typ.	max.				
DPAK	2SK1838	250	± 30	1	10	5.5	8	0.5	11	15	60
	2SK1151	450		1.5	20	3.5	5.5	1	20	30	160
	2SK1152	500				4	6				
	2SK1880	600		1.5	20	6.5	8	1.4	35	65	250
LDBAK	2SK1636	250	± 30	15	75	0.22	0.27	10	109	170	1250
	2SK1313	450		5	50	1	1.4	4	35	80	640
	2SK1314	500				1.2	1.5				
	2SK1540	450		7	60	0.6	0.8	6.5	70	135	1050
	2SK1541	500				0.7	0.9				
	2SK1315	450		8	60	0.55	0.7	7.5	72	145	1150
	2SK1316	500				0.6	0.8				
	2SK1618			3	30	3.8	5	2	33	95	295
	2SK1624			4	50	1.8	2.4	3.5	38	95	600
	2SK1625	600		7	75	0.9	1.3	6.5	65	150	1180
	2SK1647	900		2	50	5	7	1.5	45	110	425
	2SK1528	900		4	60	3	4	2.7	75	180	740
TO-220AB	2SK1667	250	± 30	7	50	0.4	0.55	5	68	102	690
	2SK1761			12	75	0.23	0.35	8	85	144	1100
	2SK1400	300		7	50	0.5	0.7	5	60	100	635
	2SK1400A	350				0.6	0.8				
	2SK1153	450		3	30	2	2.8	2.5	27	50	330
	2SK1154	500				2.2	3				
	2SK1155	450		5	50	1	1.4	4	35	80	640
	2SK1156	500				1.2	1.5				
	2SK1157	450		7	60	0.6	0.8	6.5	70	135	1050
	2SK1158	500				0.7	0.9				
	2SK1159	450		8		0.55	0.7	7.5	72	145	1150
	2SK1160	500				0.6	0.8				
	2SK1402	600		4	50	1.8	2.4	3.5	38	95	600
	2SK1402A	650				2	2.6				
	2SK1809	600		5	60	1.1	1.5	5	57	160	1000
	2SK1338	900		2	50	5	7	1.5	45	110	425
	2SK1807	900		4	60	3	4	2.7	75	180	740
TO-220FM	2SK1668	250	± 30	7	30	0.4	0.55	5	68	102	690
	2SK1762			12	35	0.23	0.35	8	85	144	1100
	2SK1862	450		3	20	2	2.8	2.5	27	50	330
	2SK1863	500				2.2	3				
	2SK1626	450		5	35	1	1.4	4	35	80	640
	2SK1627	500				1.2	1.5				
	2SK1566	450		7	35	0.6	0.8	6.5	70	135	1050
	2SK1567	500				0.7	0.9				
	2SK1572			3	25	3.8	5	2	33	95	295
	2SK1637			4	35	1.8	2.4	3.5	38	95	600
	2SK1404	600		5	35	1.1	1.5	5	57	160	1000
	2SK1808	900		4	35	3	4	2.7	75	180	740

Notes :

* : Value at Tc = 25°C

** : Test condition RDS(on) : VGS = 4V, 10V, ID = 1/2 ID max (DC)

lyfsl : VDS = 10V, ID = 1/2 ID max (DC)

□ : Built in high speed diode version