

Table 7 : DIII-H Series Typical Characteristics Cont'd

Package	Type Number	Absolute Maximum Ratings				Electrical Characteristics (typ.)					
		V _{DSS} (V)	V _{GSS} (V)	I _D (A)	P _{ch} * (W)	R _{DS(on)} (Ω)		I _{yfsl} (S) **	t _{on} (ns)	t _{off} (ns)	C _{iss} (pF)
						typ.	max.				
TO-3P	2SK2007	250	± 30	20	100	0.12	0.15	14	155	290	2340
	2SK1669			30	125	0.075	0.095	20	215	420	3100
	2SK1671					0.075	0.095	20	215	380	3000
	2SK1401	300		8	100	0.25	0.35	9.5	95	155	1250
	2SK1401A					0.3	0.4				
	2SK1161	450		10		0.6	0.8	7	75	135	1050
	2SK1162					0.7	0.9				
	2SK1163	450		11		0.55	0.7	8	77	145	1150
	2SK1164					0.6	0.8				
	2SK1165	450		12		0.4	0.55	10	90	180	1450
	2SK1166	500				0.45	0.6				
	2SK1167	450		15		0.25	0.36	13	140	220	2050
	2SK1168	500				0.3	0.4				
	2SK1169	450		20	120	0.2	0.25	16	147	290	2800
	2SK1170	500				0.22	0.27				
	2SK1515	450		10	100	0.6	0.8	7	80	150	1100
	2SK1516	500				0.7	0.9				
	2SK1517	450		20	120	0.2	0.25	16	165	345	3050
	2SK1518	500				0.22	0.27				
	2SK1403	600		8	100	0.9	1.3	6.5	65	150	1180
	2SK1403A	650				1	1.4				
	2SK1968	600		12	100	0.68	0.88	10	95	210	1800
	2SK1573			15	125	0.35	0.5	14	140	340	3150
	2SK1339			3	80	5	7	1.9	50	105	425
	2SK1340	900		5	100	3	4	3.2	85	180	740
	2SK1341			6		2	3	2.7	100	225	980
	2SK1342			8		1.2	1.6	5.5	160	315	1730
	2SK1933			10		150	0.9	1.2	7	170	455
	2SK1773	1000		5	100	1.5	2	5	135	345	1700
TO-3P-FM	2SK1934	1000	± 30	8	150	1.2	1.6	6	170	505	2690
	2SK2008	250		20	60	0.12	0.15	14	155	290	2340
	2SK1670			30	60	0.07	0.095	20	215	420	3100
	2SK1831	450		10	50	0.6	0.8	7	75	135	1050
	2SK1832	500				0.7	0.9				
	2SK1328	450		12	60	0.4	0.55	10	90	180	1450
	2SK1329	500				0.45	0.6				
	2SK1405	600		15	60	0.35	0.5	14	155	340	3150
	2SK1859	900		6	60	2	3	3.7	100	225	980
	2SK1775			8	60	1.2	1.6	5.5	160	315	1730
TO-3PL	2SK1947	250	± 30	50	200	0.047	0.055	30	345	620	5810
	2SK1948			50	200	0.047	0.055	30	330	620	5830
	2SK1519	450		30	200	0.11	0.15	25	235	615	5800
	2SK1520	500				0.12	0.16				
	2SK1521	450		50	250	0.08	0.1	35	335	850	8700
	2SK1522	500				0.085	0.11				
	2SK1628	450		30	200	0.2	0.25	20	172	300	2800
	2SK1629	500				0.22	0.27				
	2SK1971	500		35	200	0.19	0.23	24	220	450	4320
	2SK1526	450		40	250	0.11	0.15	30	235	580	5800
	2SK1527	500				0.12	0.16				
	2SK1836	450		50	250	0.08	0.1	35	330	770	8150
	2SK1837	500				0.085	0.11				
TO-3	2SK1371	450	± 30	20	125	0.28	0.33	16	147	290	2800
	2SK1372	500				0.3	0.35				

Notes :

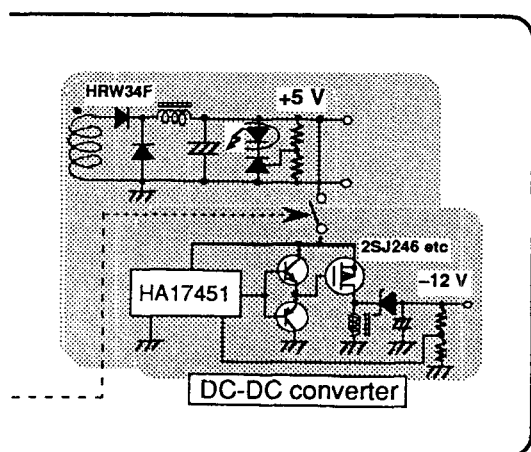
* : Value at T_c = 25°C** : Test condition R_{DS(on)} : V_{GS} = 4V, 10V, I_D = 1/2 I_D max (DC)I_{yfsl} : V_{DS} = 10V, I_D = 1/2 I_D max (DC)

□ : Built in high speed diode version

- **Multiple Outputs.** There may be multiple outputs (positive and negative) that may differ in their voltage and current ratings. Such outputs may be isolated from each other.

Hitachi's range of devices offers these requirements. Common goals are to reduce power supply size, weight and improve their efficiency.

The following describes Hitachi's design concept with related recommended devices.



Power MOSFET for Switching Power Supply (I)

Classification	Input voltage	Commendation products					
		~10W	10~30W	30~50W	50~100W	100~200W	200W
Fly-back	AC 100 ~ 132 V	2SK579 2SK580 2SK1151 2SK1152	2SK1153 2SK1154 2SK1862	2SK1155 2SK1156 2SK1157 2SK1158 2SK1313 2SK1314 2SK1540 2SK1541 2SK1626	2SK1159 2SK1160 2SK1161 2SK1162 2SK1163 2SK1206 2SK1225 2SK1315 2SK1316 2SK1328	2SK1163 2SK1164 2SK1165 2SK1166 2SK1167 2SK1168 2SK1268	2SK1169 2SK1170 2SK1526 2SK1527 2SK1629 2SK1836 2SK1837
Forward	AC 200 ~ 264 V		2SK513 2SK1199 2SK1338	2SK513 2SK415 2SK1199 2SK1200 2SK1201	2SK534 2SK695 2SK696 2SK1202 2SK1203 2SK1340 2SK1341 2SK1528	2SK684 2SK685 2SK695 2SK696 2SK1203 2SK1204 2SK1205 2SK1342	2SK684 2SK685 2SK1204 2SK1205 2SK1342 2SK1573 2SK1770 2SK1773

Power MOSFET for Switching Power Supply (II)

Classification	Input voltage	Commendation products					
		~10W	10~30W	30~50W	50~100W	100~200W	200W
DC-DC Converter	DC 5 ~12V	2SJ182 2SJ234 2SK974 2SK975	2SJ175 2SJ246 2SK970 2SK1093	2SJ214 2SJ219 2SK971 2SK1094 2SK1648	2SJ220 2SJ242 2SK972 2SK1095 2SK1622	2SJ217 2SJ218 2SK1296	2SK1297 2SK1298 2SK1665
	DC24V	2SJ278 2SK430	2SJ245 2SJ279 2SK1299 2SK1254 2SK1949	2SJ221 2SJ222 2SJ296 2SK740 2SK1301 2SK1306 2SK1620 2SK1918	2SJ280 2SJ297 2SK622 2SK1302 2SK1307 2SK1623	2SK622 2SK1303	2SK1304
	DC48V		2SK440 2SK741 2SK1335	2SK741 2SK1621 2SK1635 2SK1668 2SK1762	2SK623 2SK1135 2SK1919	2SK623	2SK1670 2SK1671 2SK1948

IGBTs for Switching Power Supply

Package	Type Number	Absolute Maximum Ratings				Electrical Characteristics (typ)				
		V _{CE} (V)	V _{GE} (V)	I _C (A)	P _C (W)	V _{CE} (sat) (V)	I _C (A)	V _{GE} (V)	C _{ies} (pF)	t _{off} (μs)
TO-220AB	GN6015A	600	±20	15	60	3	15	15	1500	0.7
TO-3P	GN4530C	450	±20	30	150	3	30	12	2250	0.6
	GN6030C	600	±20	30	150	3	30	15	2250	0.7
	GN12015C	1200	±20	15	150	3.5	15	15	1800	0.7
TO-3PL	GN6050E	600	±20	50	200	3	50	15	3700	0.8
	GN6075E	600	±20	75	250	3	75	15	5450	0.8
	GN12030E	1200	±20	30	200	3.5	30	15	3600	0.7
	GN12050E	1200	±20	50	200	3.5	50	15	6000	0.8