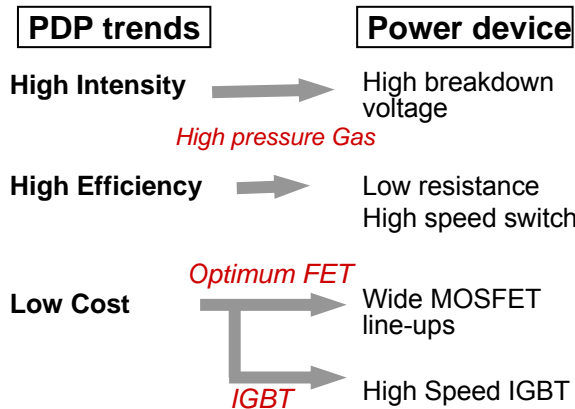
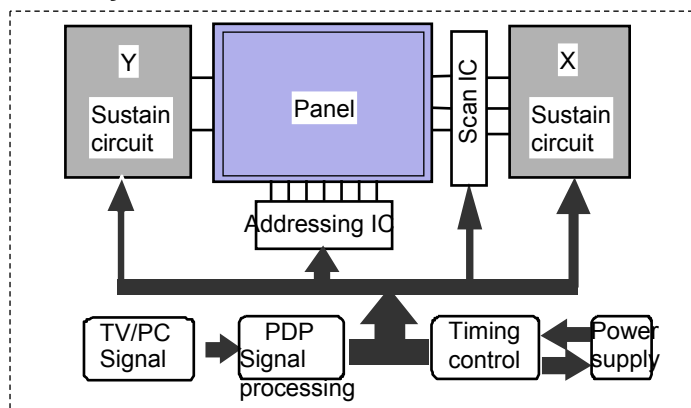


# Power MOSFETs and IGBT for PDP

## Merits

Power MOSFET	IGBT
Low ON resistance	Low $V_{CE(sat)}$
Low $Q_g$	High-speed switching
High avalanche tolerance	

## PDP System



## Product Lineup

### Power MOSFET

P/N	Maximum Rating			Electrical Characteristics		Package
	$V_{DSS}$ (V)	$I_D$ (A)	$V_{GS}$ (V)	$V_{GS(off)}$ typ(V)	$R_{DS(on)}$ typ(m $\Omega$ )	
H7N1005LS	100	15	$\pm 20$	2.0	85	LDBPAK
H7N1004LS	100	30	$\pm 20$	2.0	25	LDBPAK
H5N2301PF	230	25	$\pm 30$	3.5	65	TO-3PFM
H5N2306PF	230	30	$\pm 30$	3.5	48	TO-3PFM
H5N2305PF	230	35	$\pm 30$	3.5	30	TO-3PFM
H5N2509P	250	30	$\pm 30$	3.5	53	TO-3PFM
H5N2503P	250	50	$\pm 30$	3.5	40	TO-3P
H5N3004P	300	25	$\pm 30$	3.5	75	TO-3P
H5N3007LS	300	25	$\pm 30$	2.8	120	LDBPAK
H5N3003P	300	40	$\pm 30$	3.5	60	TO-3P
H5N3504P	350	20	$\pm 30$	3.5	100	TO-3P

### IGBT (High-speed type)

P/N	Maximum Rating			Electrical Characteristics		Package
	$V_{CES}$ (V)	$I_C$ (A)	$V_{GE}$ (V)	$V_{CE(sat)}$ (V) typ	$t_f$ ( $\mu$ S) typ	
GN4030V5AB	400	30	$\pm 20$	1.5	0.12	TO-220AB
GN6030V5AB	600	30	$\pm 20$	1.7	0.12	TO-220AB
RJP3053DPP	300	30	$\pm 30$	2.0	0.15	TO-220FN
RJP3063DPP	300	30	$\pm 30$	1.7	0.30	TO-220FN
RJP3054DPP	300	35	$\pm 30$	1.8	0.15	TO-220FN
RJP3064DPP	300	35	$\pm 30$	1.5	0.30	TO-220FN
RJP3055DPP	300	40	$\pm 30$	1.8	0.15	TO-220FN
RJP3065DPP	300	40	$\pm 30$	1.5	0.3	TO-220FN
RJP4065DPP	400	40	$\pm 30$	1.6	0.3	TO-220FN
RJP2557DPK	270	50	$\pm 30$	1.6	0.15	TO-3P
RJP3056DPK	300	45	$\pm 30$	1.6	0.15	TO-3P
RJP3057DPK	300	50	$\pm 30$	1.6	0.15	TO-3P
RJP3066DPK	300	45	$\pm 30$	1.4	0.3	TO-3P
RJP3067DPK	300	50	$\pm 30$	1.4	0.3	TO-3P
RJP4067DPK	400	50	$\pm 30$	1.7	0.35	TO-3P

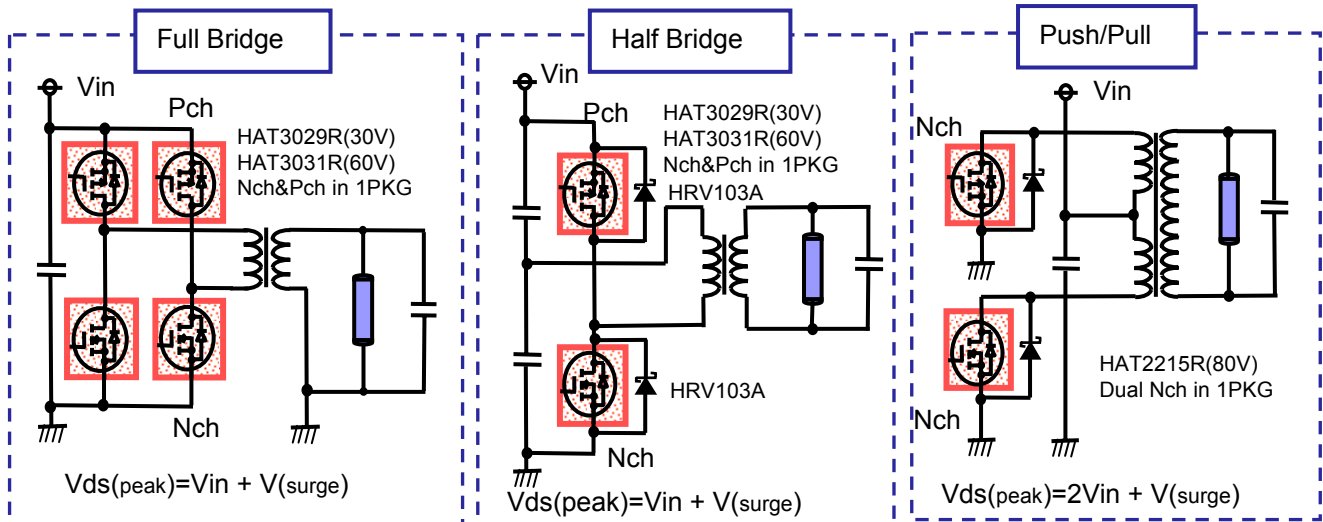
# Power MOSFETs for Backlight Inverter

## Achieve Miniaturization and Higher Efficiency

Features	Merits
Low on resistance, High-speed switching	High efficiency
Low Qg, Low Qgd	
Small package, Built-in 2 elements	Miniaturization



### Example of Application Circuit (LCD TV, TFT Monitor, Note PC)



### Product Lineup

No	Type No	Max.Ratings			RDS(on) (mΩ)				Qgd (nC)	Qg (nC)	
		VDSS	VGSS	ID	VGS=4.5v(8v)		VGS=10v				
		(V)	(V)	(A)	typ	max	typ	max			
1	HAT2199R	Single	30	±20	11	17	25	13	16.5	1.8	7.5
2	HAT2208R		30	±20	9	24	35	18	23	1.1	4.4
3	HAT2256R		60	±20	8	28	41	24	30	3.2	10
4	HAT1131R		-30	±20	-9	21.5	31	15	19	5.8	17
5	HAT1132R		-30	±20	-7	27.5	40	20	25	5.2	11.5
6	HAT2276R	Nch+Nch	30	±20	7.5	27	40	19	24	1.2	4.6
7	HAT2280R		30	±20	6	40	58	27	34	1.1	3
8	HAT2275R		60	±20	6.6	29	43	25	32	3.2	10
9	HAT2215R		80	±20	3.4	100	145	88	115	1.3	7.3
10	HAT1126R	Pch+Pch	-60	±20	6	60	85	40	50	8	37
11	HAT3029R	Nch+Pch	30	±20	6	40	58	27	34	1.1	3.1
12	HAT3037R		-30	+10/-20	-6	36	53	25	32	4.4	11.5
			45	±20	5	55	75	44	55	0.9	3.0
13	HAT3010R		-45	+10/-20	-3.8	95	130	75	95	1.5	4.9
			60	±20	6	32	45	25	32	8	18
14	HAT3031R		-60	±20	-5	90	130	60	76	8	18
			60	±20	6.6	29	43	25	32	2.8	10
15	HAT3038R		-60	+10/-20	-3.4	120	175	95	120	2.2	6.0
			60	±20	5	55	80	48	60	1.4	-
16	HAT3021R		-60	±20	-3.8	90	130	80	100	2.8	-
			80	±20	3.4	100	145	90	115	1.3	7.3
17	HAT3019R	-80	±20	-2.6	200	290	165	210	2.4	16	
		100	±20	3.5	120	160	90	115	3.2	15	
			-100	±20	-2.3	300	500	240	300	3.1	16