

SANYO

Medium Output Power MOSFETs(2)

LD Series (Low Drive) VDSS: 12V~200V (F.C.P: Flat Channel Process)

SANYO has realized low-threshold voltage by optimum design of impurity concentration of Si or Si surface by adopting the F.C.P. process

Ultra-low on-resistance has been achieved by the LSI-class precision process and the optimum design.

In addition to the conventional 4V-drive products, this series has included 2.5V-drive products, and is the ultra-low on-resistance low-voltage series which is the first SOP8 package MOSFET series.

In addition to the below SANYO has a wide variety of package of large signal power MOSFET series. See the tables on other pages.

Applications *Li ion battery, notebook PC, AV equipment, personal equipment etc.

Features *Low on-resistance, low-voltage drive. Available for surface mount.

Device marks are indicated in four-digit figures of the type Nos. for SOP8 and figures of the type Nos. for PCP5.

TSSOP8 device marking is an S followed by figures of its type No.

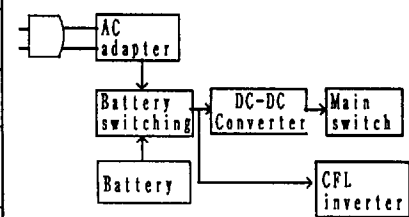
PD (Package: SOP8): Mounted on ceramic board (*: 1200mm², 1000mm² × 0.8mm). For P-channel, "-" sign is omitted.

PD ♦ sign: Tc=25°C.

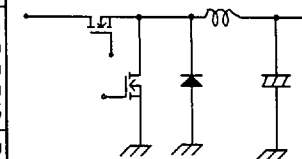
PD (Package: CPH3/6): Mounted on ceramic board (900mm² × 0.8mm).

Type No. (): Marking Features	Package	Absolute Maximum Ratings/Ta=25°C				Electrical Characteristics/Ta=25°C				
		V _{DSS}	V _{GSS}	I _D	P _D	V _{GS(off)}	y _{fs}	R _{DS(on)} (Ω)		C _{iss}
		(V)	(V)	(A)	(W)	(V)	typ (S)	VGS=4V typ/max	VGS=10V typ/max	typ (pF)
2SJ284(AM) 2SJ502(FM)	CP	±15	0.3	0.25	1 ~ 2	0.35	2.2/3.3	1.5/2.2	50	
±20		0.5	0.25	1 ~ 2.5	0.8	0.69/0.97	0.36/0.6	90		
±15		0.5	0.25	1 ~ 2	0.7	0.75/1.1	0.5/0.75	50		
2SK1847(KJ) 2SK2910(EK) 2SK2969(GK)	CP	±20	0.8	0.25	1 ~ 2.4	1.6	0.35/0.48	0.23/0.3	90	
±10		0.8	0.25	0.4~1.3	0.5	0.28/0.37	-	90		
±20		0.8	0.25	1 ~ 2.5	1.5	400m/550m	240m/315m	160		
CPH3304(JD) CPH3404(KD)	CPH3	±24	2.2	1	1 ~ 2.4	2	230m/320m	115m/150m	125	
CPH6302(KB) CPH6402(KB)	CPH6	±20	3	1.6	1 ~ 2.5	3	190m/270m	110m/145m	300	
±24	4	1.6	1 ~ 2.4	4.3	110m/155m	55m/75m	240			
2SJ187(JA) 2SJ287(JD) 2SJ416(JJ) 2SJ561(JM) 2SJ563(JO)	PCP	±15	1	♦3.5	1 ~ 2	1	0.75/1.1	0.5/0.75	170	
±15		0.5	♦3.5	1 ~ 2	0.4	2.2/3.3	1.5/2.2	50		
±20		2	♦3.5	1 ~ 2.5	2	0.48/0.65	0.31/0.44	170		
±20		1.5	♦3.5	1 ~ 2.5	1.1	0.69/0.97	0.36/0.6	90		
±20		2	♦3.5	1 ~ 2.5	1.7	0.4/0.55	240m/315m	160		
±15		2	♦3.5	1 ~ 2	2	0.3/0.45	0.2/0.3	170		
2SK1467(KC) 2SK1724(KF) 2SK2437(KQ) 2SK3120(KT) 2SK3122(KW)	PCP	±15	1	♦3.5	1 ~ 2	1	0.75/1.1	0.5/0.75	50	
±20		2	♦3.5	1 ~ 2.5	2.4	0.2/0.26	0.13/0.18	170		
±20		2	♦3.5	1 ~ 2.4	1.8	0.35/0.48	0.23/0.3	90		
±24		3	♦3.5	1 ~ 2.4	2.5	0.23/0.32	115m/150m	125		
±20		2	0.8	1 ~ 2.5	3.7	220m/310m	110m/140m	400		
±20		3	0.8	1 ~ 2.4	5.5	80m/110m	45m/60m	330		
FTD1002 FTD2002 FTD2013 FTS1002 FTS1004 FTS2002 FTS2004	TSSOP8	±10	4.5	0.8	0.5~1.3	10	25m/35m	-	1000	
±20	4	1.5	1 ~ 2.5	7.5	85m/120m	42m/54m	820			
±20	3	1.3	1 ~ 2.5	5	135m/190m	65m/85m	470			
±20	5	1.5	1 ~ 2.5	10	37m/50m	24m/32m	700			
±20	4	1.3	1 ~ 2.4	8	58m/78m	36m/46m	460			
2SJ421 2SJ469	TSSOP8	±20	5	2	1 ~ 2.5	10	65m/107m	45m/58m	1000	
±25		5	2	1 ~ 2.5	8	100m/160m	55m/80m	800		
2SK2442	TSSOP8	±20	7	2	1 ~ 2.5	12	34m/48m	24m/29m	1000	
FSS102 FSS104 FSS106 FSS108 FSS202 FSS204 FSS206 FSS208 FSS212 FSS214 FSS216	SOP8	±20	5	★1.8	1 ~ 2.5	8	85m/120m	42m/54m	820	
±20	6	★2	1 ~ 2.5	9	62m/85m	30m/38m	1100			
±20	7	2	1 ~ 2.5	10	47m/66m	23m/30m	1500			
±20	8	2	1 ~ 2.5	13	35m/48m	17m/22m	2000			
±20	7	★1.8	1 ~ 2.4	12	37m/50m	25m/32m	700			
±20	8	★2	1 ~ 2.4	16	27m/37m	18m/25m	960			
±20	9	2	1 ~ 2.5	14	20m/26m	14m/18m	1600			
±20	10	2	1 ~ 2.4	24	15m/20m	9.5m/12.5m	1700			
±24	8	★1.8	1 ~ 2.4	12	42m/58m	21m/27m	640			
±24	9	★2	1 ~ 2.4	13	30m/42m	15m/20m	900			
±24	10	2	1 ~ 2.4	14	20m/28m	11m/15m	1200			
FW106 FW113 FW115 FW203 FW206 FW213 FW215 FW306 FW501	PchX2 PchX2 PchX2 NchX2 NchX2 NchX2 NchX2 NchX2 Nch+Pch (pch) FSS202+ SB20-03P	±25	3	P _r	2	1 ~ 2.5	5	200m/320m	110m/160m	460
±20	5	1.7	1 ~ 2.5	8	85m/120m	42m/53m	820			
±20	3	★1.7	1 ~ 2.5	5	135m/190m	65m/85m	470			
±20	5	P _r	2	1 ~ 2.5	8	58m/78m	36m/46m	550		
±25	5	P _r	2	1 ~ 2.5	8	84m/120m	50m/65m	460		
±20	7	P _r	2	1 ~ 2.4	10	37m/50m	25m/32m	700		
±20	5	P _r ★	2	1 ~ 2.4	9	58m/78m	36m/46m	460		
±25	5	P _r	2	1 ~ 2.5	8	84m/120m	50m/65m	460		
±20	4	5	200m/320m	110m/160m	700					
±20	7	★1.8	1 ~ 2.4	12	37m/52m	25m/32m	700			

Notebook Computer System Diagram

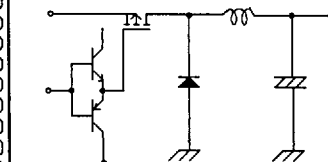


Synchronous rectifier type



DC-DC Converter Sample Application Circuits

Chopper type



Underlined type Nos. are before mass production.

(To be continued next page for VDSS 30V series)

In addition to the above, complex type packages such as PCP4/5(MOSFET × 2, MOSFET + SBD) are available. See the tables.

Precaution: Take care to prevent device breakage from static electricity because MOSFETs cannot withstand much static electricity.

These specifications are subject to change without notice.

MOSFETs Continued on next Page.