

POWER MOS FETs (1)

The Sanyo J-MOS series utilizes Sanyo's own fine fabrication process for power devices to develop an entire series of ultrahigh performance power devices capable of high voltage, high speed and large current operation.

With performance of wide applications for virtually any types of power electronic equipment, the UH Series, AP Series and LD Series offer the most suitable devices to meet specific needs.

In addition to the above we have Small-signal MOSFETs. See other pages.

UH Series (Ultra High-Voltage)

The UH Series, an ultrahigh voltage series with a world-top-class V_{DSS} of 1500V employs a UH process. This UH process is an application of Sanyo's original bipolar process to the minute MOS process.

UH process technology *Low (Ciss), ultrahigh voltage, MOS unit cell design. *Adoption of precisely doped silicon wafers. *Adoption of the original protection film has achieved higher reliability. *Optimum design of a guard-ring structure.

V_{DSS} 900V, 1000V, 1200V system
(*:PD value at T_c=25°C) ※ R_{DS(on)}:V_{GS}=10V.

Type No.	Package	Absolute Maximum Ratings /Ta=25°C					Electrical Characteristics/Ta=25°C			Type No.	
		V _{DSS} (V)	V _{GSS} (V)	I _D (A)	I _{DP} (A)	* P _D (W)	V _{GS(off)} (V)	* R _{DS(on)} typ/max (Ω)	C _{iss} typ (PF)		
2SK1455 2SK1456 2SK1457	TO-220	900	±30	0.2	0.4	30	2~3	50/70	45	2SK1455	
				3	6	60			4.7/6	350	2SK1456
				5	10	70			2.8/3.6	700	2SK1457
2SK1458LS 2SK1459LS 2SK1460LS	TO-220FI (LS)			0.2	0.4	20			50/70	45	2SK1458LS
				2.5	5	30			4.7/6	350	2SK1459LS
				3.5	7	40			2.8/3.6	700	2SK1460LS
2SK2083	SMP			5	10	70			2.8/3.6	700	2SK2083
2SK1461 2SK1462	TO-3PB			5	10	120			2.8/3.6	700	2SK1461
				8	16	150			1.2/1.6	1600	2SK1462
2SK1463 2SK1464	TO-3PML			4.5	9	60			2.8/3.6	700	2SK1463
		8	16	80		1.2/1.6	1600	2SK1464			
2SK1465 2SK1466	TO-3PBL	8	16	200		1.2/1.6	1600	2SK1465			
		16	32	250		0.6/0.8	3200	2SK1466			
2SK2347 2SK2348	TO-3JML	1000 1200	±30 ±30	20 14	40 28	160 160	1.5~3.5	0.6/0.8 1.0/1.5	3300 3000	2SK2347 2SK2348	

V_{DSS} 1500V system

Type No.	Package	V _{DSS} (V)	V _{GSS} (V)	I _D (A)	I _{DP} (A)	* P _D (W)	V _{GS(off)} (V)	* R _{DS(on)} typ/max (Ω)	C _{iss} typ (PF)	Type No.
2SK1412LS	TO-220FI (LS)	1500	±20	0.1	0.2	20	1.5~3.5	140/200	40	2SK1412LS
2SK1413	TO-3PML			2	4	60		8/11	550	2SK1413
2SK2349	TO-3JML			10	20	160		1.5/2.5	2900	2SK2349

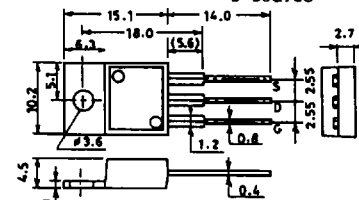
AP Series (Advanced Performance)

The AP Series provides an on-state resistance approximately 40% lower than the existing J-MOS series. A precisely controlled, channel forming process is used to achieve a threshold value variation width of 0.5V resulting in easy parallel connection operation essential for large current circuits. (V_{GS}±30V guaranteed in V_{DSS} 450V series.) Designed as a power MOSFET with well-balanced characteristics, the AP Series provides the ultimate in high-power performance. The surface mounting SMP package enables higher density assembly and higher reliability.

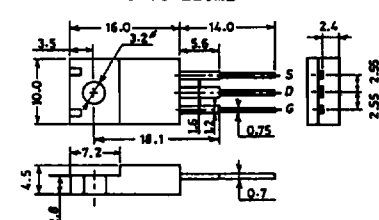
V_{DSS} 60V system (*:PD value at T_c=25°C) ※ R_{DS(on)}:V_{GS}=10V.

Type No.	Package	Absolute Maximum Ratings /Ta=25°C					Electrical Characteristics/Ta=25°C			Type No.	
		V _{DSS} (V)	V _{GSS} (V)	I _D (A)	I _{DP} (A)	* P _D (W)	V _{GS(off)} (V)	* R _{DS(on)} typ/max (Ω)	C _{iss} typ (PF)		
2SK1416 2SK1417 2SK1418	TO-220	60	±20	15	60	40	1.5~2.5	60m/80m	750	2SK1416	
				25	100	60			35m/45m	1200	2SK1417
				40	160	70			20m/26m	2400	2SK1418
2SK1419 2SK1420 2SK1421	TO-220ML			15	60	25			60m/80m	750	2SK1419
				25	100	30			35m/45m	1200	2SK1420
				40	160	40			20m/26m	2400	2SK1421
2SK1871	SMP			15	60	40			60m/80m	800	2SK1871
2SK1422 2SK1423	TO-3PB			50	200	100			20m/26m	2400	2SK1422
				80	320	150			12m/16m	4800	2SK1423
2SK1424 2SK1425	TO-3PML			40	160	60			20m/26m	2400	2SK1424
				60	240	80			12m/16m	4800	2SK1425
2SK1426	TO-3PBL			100	400	200			8m/12m	7200	2SK1426

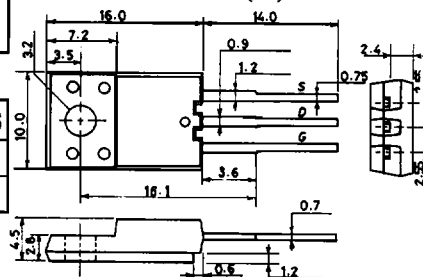
Case Outlines (unit:mm)
SANYO:TO-220 D:Drain
G:Gate
S:Source



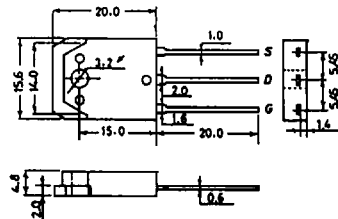
SANYO:TO-220ML



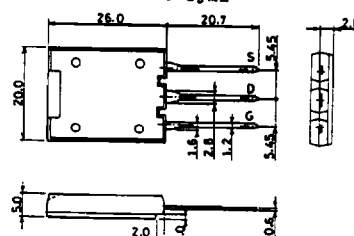
SANYO:TO-220FI (LS)



SANYO:TO-3PB



SANYO:TO-3JML



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

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