

<b>SANYO</b>	No.3825	<b>2SK1730</b>
		N-Channel MOS Silicon FET Very High-Speed Switching Applications

**Features**

- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Meets radial taping.

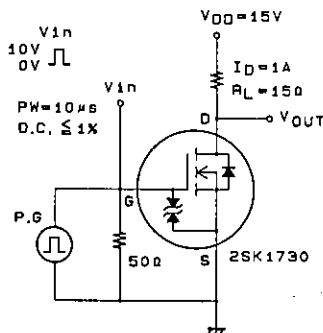
**Absolute Maximum Ratings at Ta=25°C**

			unit
Drain to Source Voltage	V <sub>DS</sub>	30	V
Gate to Source Voltage	V <sub>GSS</sub>	±15	V
Drain Current(DC)	I <sub>D</sub>	1.8	A
Drain Current(Pulse)	I <sub>DP</sub>	7.2	A
Allowable Power Dissipation	P <sub>D</sub>	1	W
Channel Temperature	T <sub>ch</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

**Electrical Characteristics at Ta=25°C**

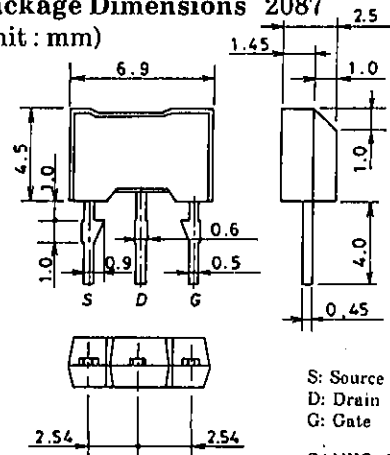
		min	typ	max	unit
D-S Breakdown Voltage	V <sub>(BR)DSS</sub> I <sub>D</sub> =1mA, V <sub>GS</sub> =0	30			V
Zero Gate Voltage Drain Current	I <sub>DSS</sub> V <sub>DS</sub> =30V, V <sub>GS</sub> =0			100	μA
Gate to Source Leakage Current	I <sub>GSS</sub> V <sub>GS</sub> =±12V, V <sub>DS</sub> =0			±10	μA
Cutoff Voltage	V <sub>GS(off)</sub> V <sub>DS</sub> =10V, I <sub>D</sub> =1mA	1.0		2.0	V
Forward Transfer Admittance	Y <sub>fs</sub>   V <sub>DS</sub> =10V, I <sub>D</sub> =1A	1.2	2.0		S
Static Drain to Source on State Resistance	R <sub>DS(on)</sub> I <sub>D</sub> =1A, V <sub>GS</sub> =10V		0.2	0.30	Ω
	R <sub>DS(on)</sub> I <sub>D</sub> =1A, V <sub>GS</sub> =4V		0.3	0.45	Ω
Input Capacitance	C <sub>iss</sub> V <sub>DS</sub> =10V, f=1MHz		170		pF
Output Capacitance	C <sub>oss</sub> V <sub>DS</sub> =10V, f=1MHz		100		pF
Reverse Transfer Capacitance	C <sub>rss</sub> V <sub>DS</sub> =10V, f=1MHz		30		pF
Turn-ON Delay Time	t <sub>d(on)</sub> See specified Test Circuit.		7		ns
Rise Time	t <sub>r</sub> "		11		ns
Turn-OFF Delay Time	t <sub>d(off)</sub> "		60		ns
Fall Time	t <sub>f</sub> "		25		ns
Diode Forward Voltage	V <sub>SD</sub> I <sub>S</sub> =1.8A, V <sub>GS</sub> =0		0.9		V

**Switching Time Test Circuit**



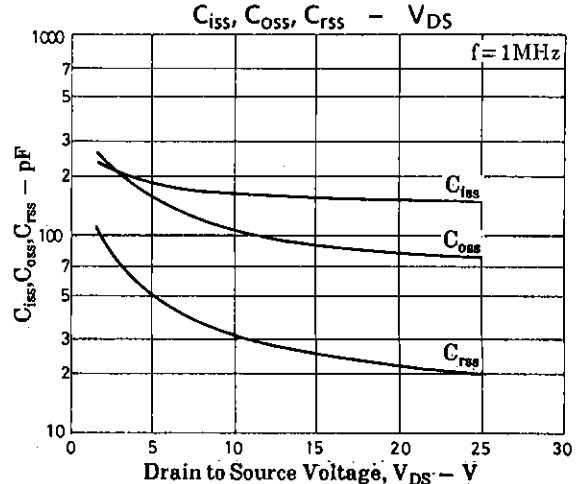
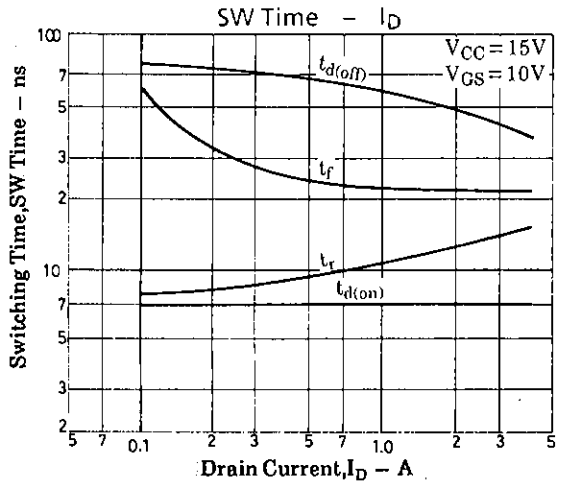
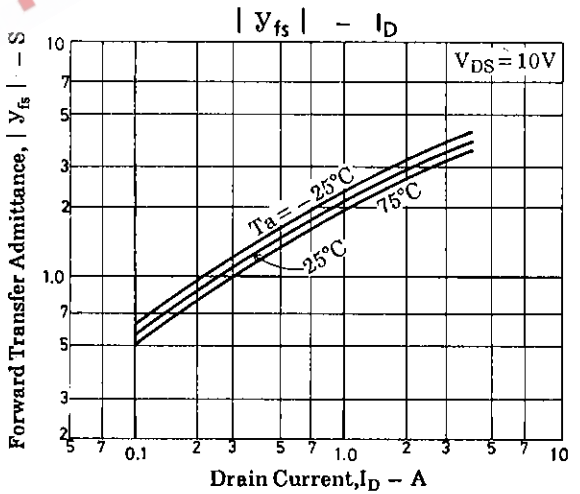
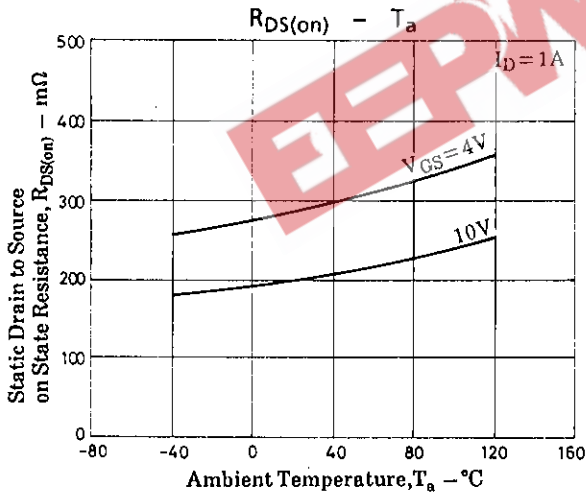
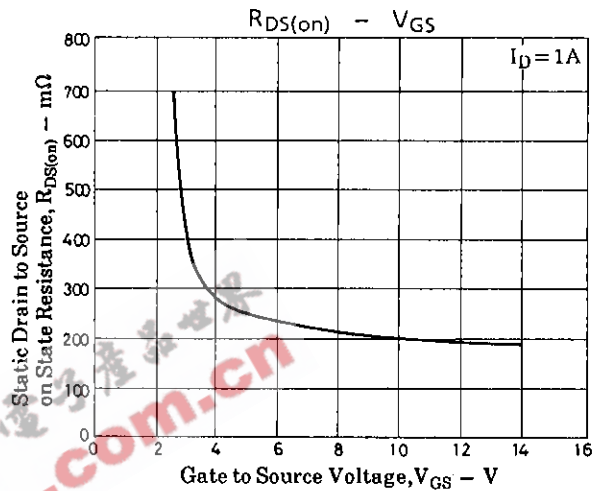
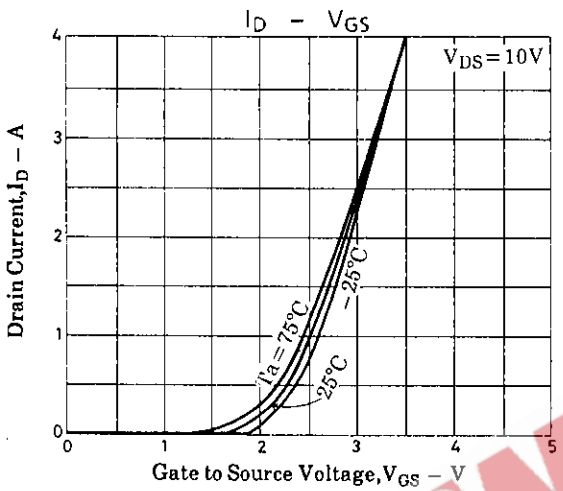
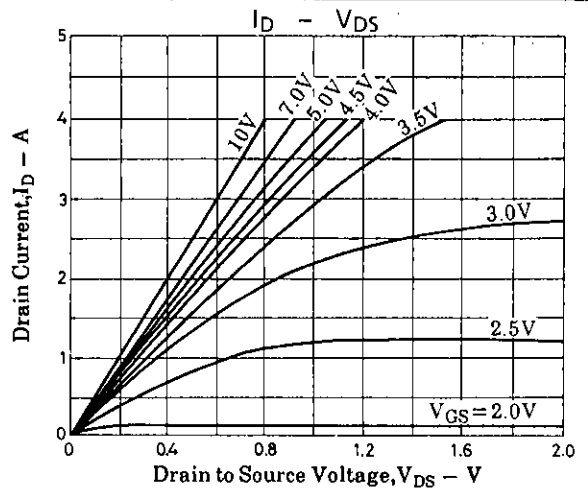
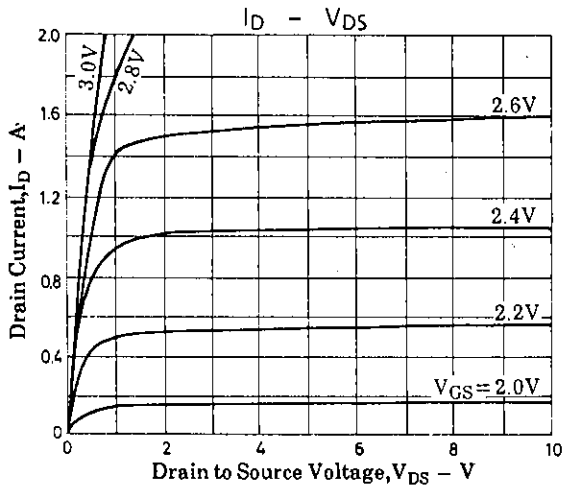
**Package Dimensions 2087**

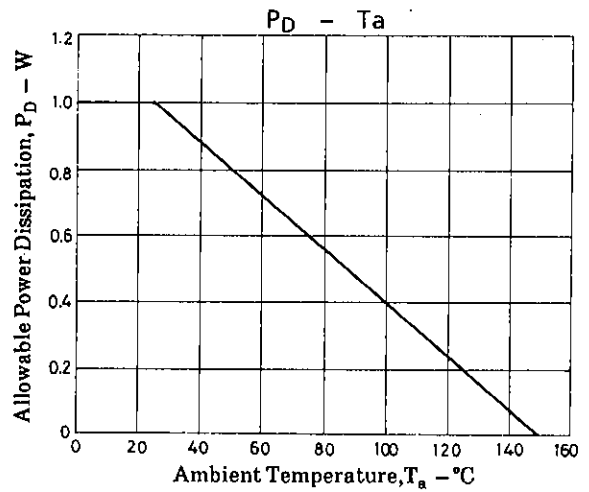
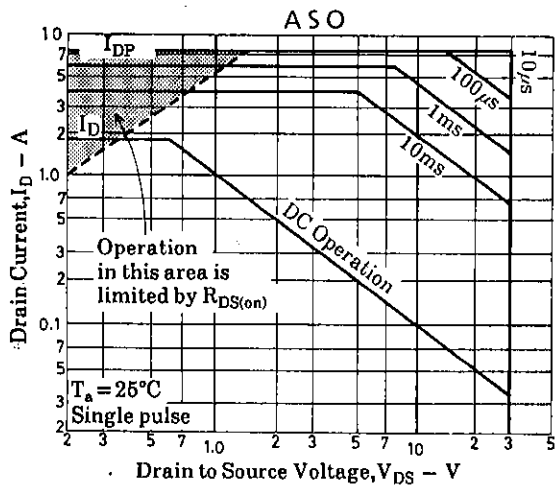
(unit : mm)



S: Source  
D: Drain  
G: Gate

SANYO: NMP





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