

<b>SANYO</b>	No. 3574	<b>2SK1436</b>
		N-Channel MOS Silicon FET Very High-Speed Switching Applications

**Features**

- Low ON-state resistance.
- Very high-speed switching.
- Converters.
- Micaless package facilitating easy mounting.

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

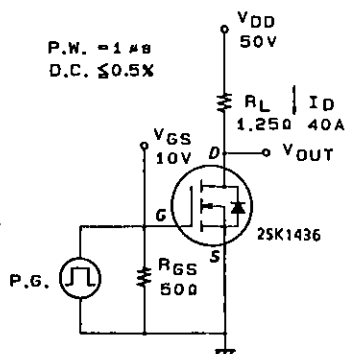
Drain to Source Voltage	$V_{DSS}$		100	V	unit
Gate to Source Voltage	$V_{GSS}$		±20	V	
Drain Current(DC)	$I_D$		50	A	
Drain Current(Pulse)	$I_{DP}$	$PW \leq 10 \mu s, \text{ duty cycle} \leq 1\%$	200	A	
Allowable Power Dissipation	$P_D$	$T_c = 25^\circ C$	80	W	
			3.0	W	
Channel Temperature	$T_{ch}$		150	°C	
Storage Temperature	$T_{stg}$		-55 to +150	°C	

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

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1mA, V_{GS} = 0$	100			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 100V, V_{GS} = 0$			100	μA
Gate to Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 20V, V_{DS} = 0$			±100	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V, I_D = 1mA$	1.5		2.5	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10V, I_D = 40A$	27	45		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = 40A, V_{GS} = 10V$	0.023	0.035		Ω
Input Capacitance	$C_{iss}$	$V_{DS} = 20V, f = 1MHz$		4800		pF
Output Capacitance	$C_{oss}$	$V_{DS} = 20V, f = 1MHz$		1400		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = 20V, f = 1MHz$		400		pF
Turn-ON Delay Time	$t_{d(on)}$	$I_D = 40A, V_{GS} = 10V$ $V_{DD} = 50V, R_{GS} = 50\Omega$		45		ns
Rise Time	$t_r$		195		ns	
Turn-OFF Delay Time	$t_{d(off)}$		560		ns	
Fall Time	$t_f$		240		ns	
Diode Forward Voltage	$V_{SD}$	$I_S = 50A, V_{GS} = 0$			1.8	V

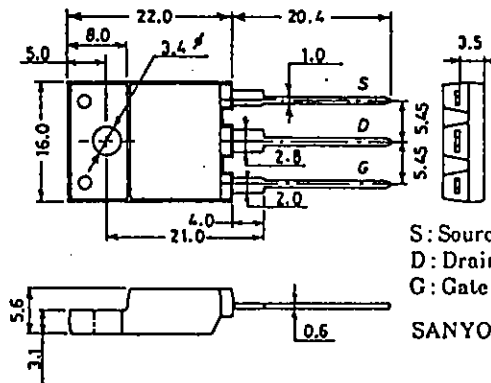
(Note) Be careful in handling the 2SK1436 because it has no protection diode between gate and source.

**Switching Time Test Circuit**



**Package Dimensions 2076**

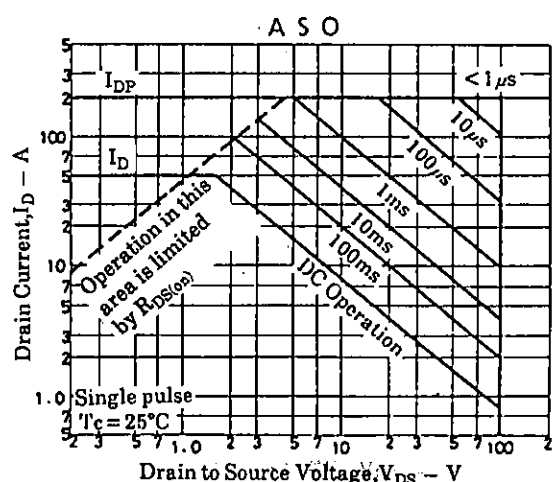
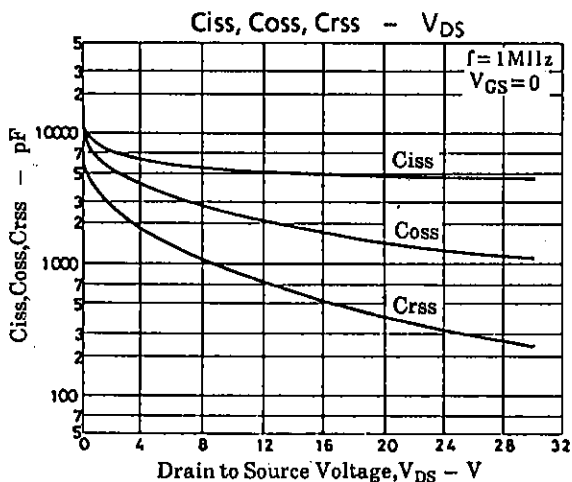
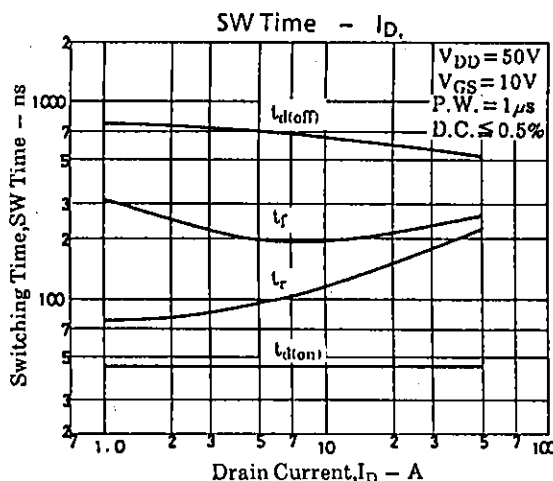
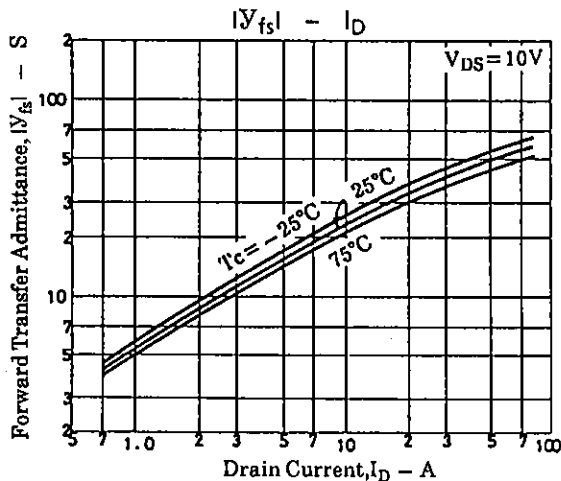
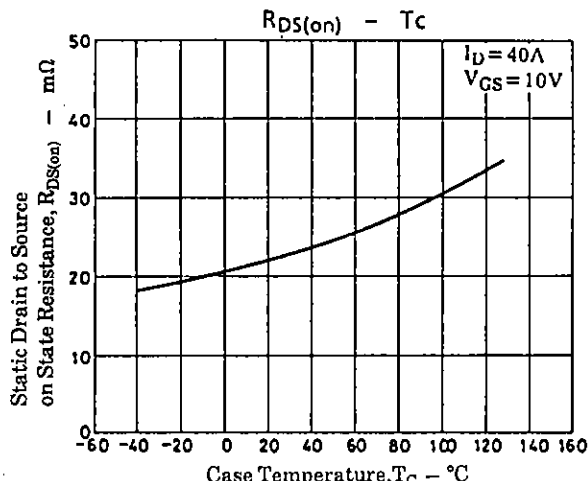
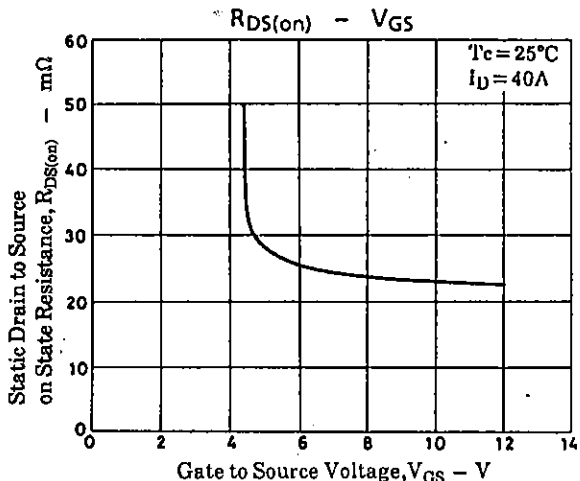
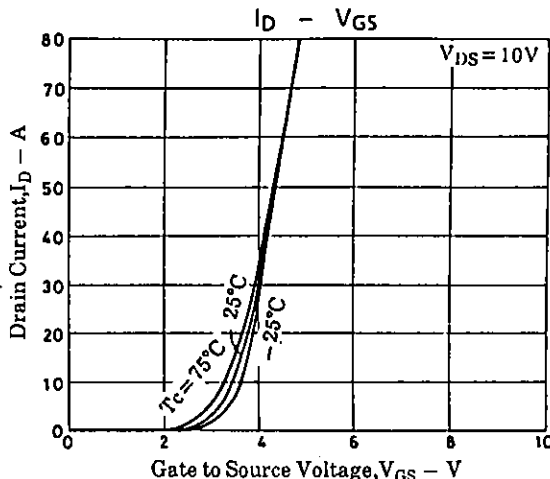
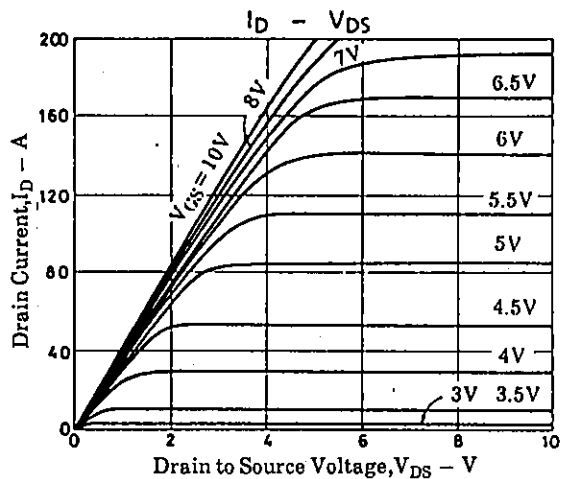
(unit : mm)

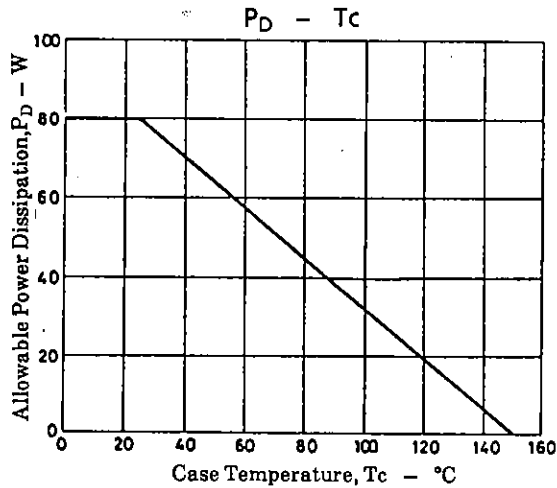
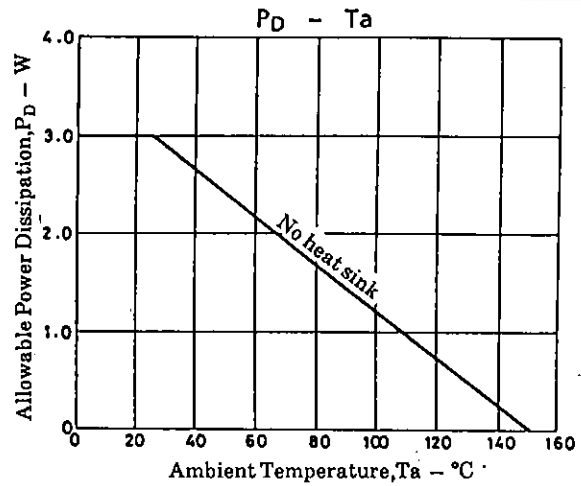
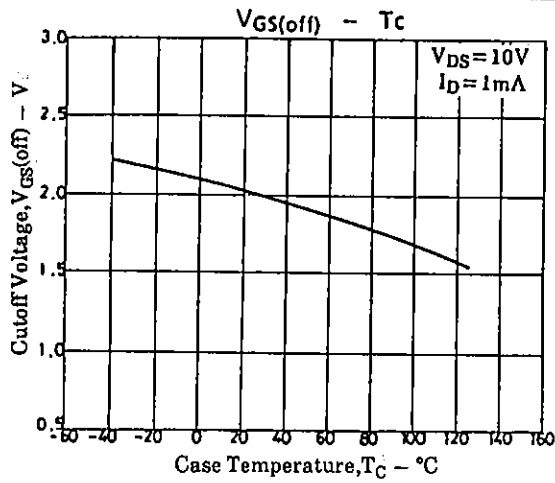


S: Source  
D: Drain  
G: Gate

SANYO: TO-3PML

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