

SANYO	No. 3574	2SK1436
		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

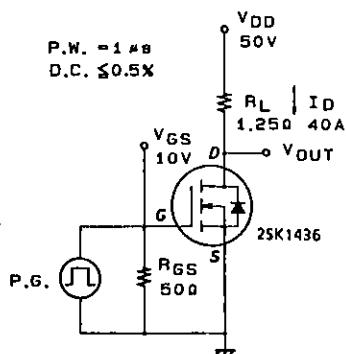
Drain to Source Voltage	V_{DSS}		100	V	unit
Gate to Source Voltage	V_{GSS}		± 20	V	
Drain Current(DC)	I_D		50	A	
Drain Current(Pulse)	I_{DP}	$PW \leq 10 \mu s, \text{ duty cycle} \leq 1\%$	200	A	
Allowable Power Dissipation	P_D	$T_c = 25^\circ C$	80	W	
			3.0	W	
Channel Temperature	T_{ch}		150	$^\circ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

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

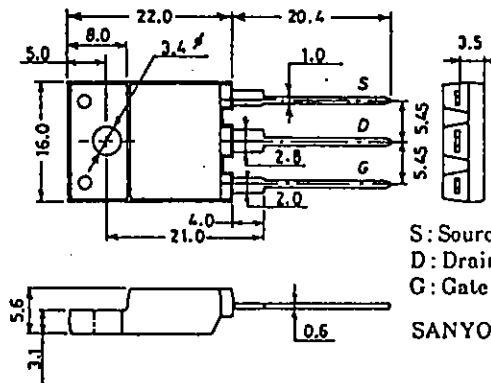
(Note) Be careful in handling the 2SK1436 because it has no protection diode between gate and source.

Switching Time Test Circuit



Package Dimensions 2076

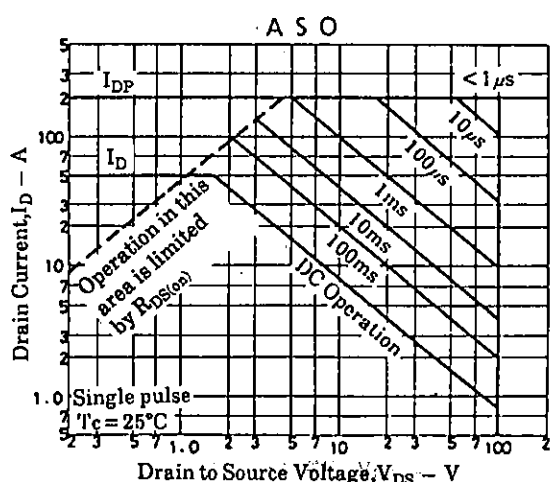
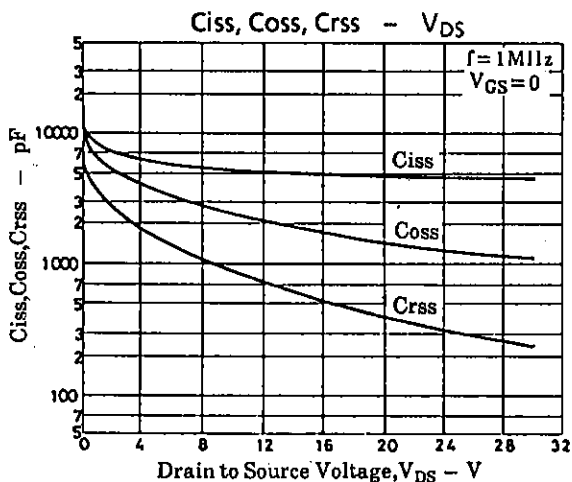
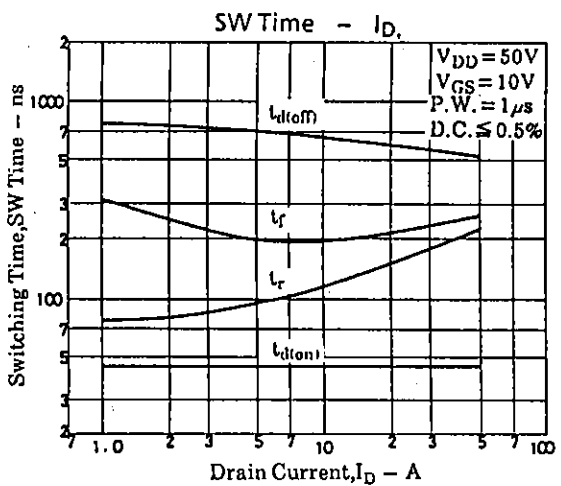
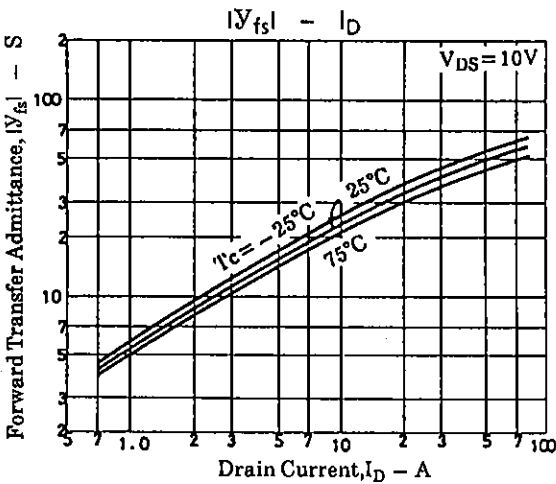
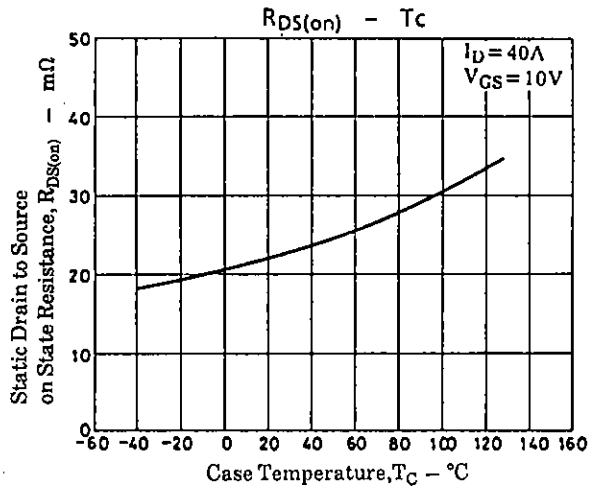
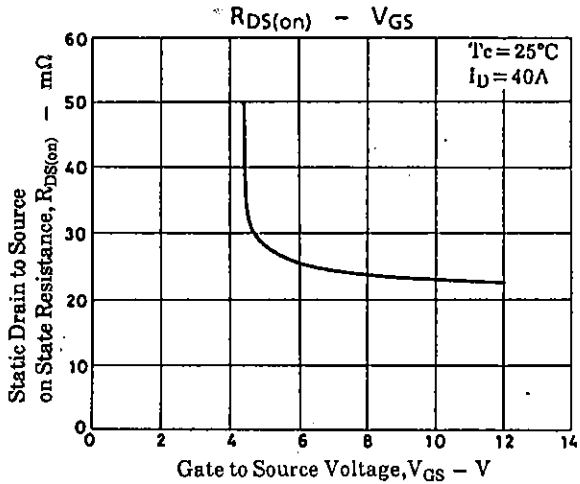
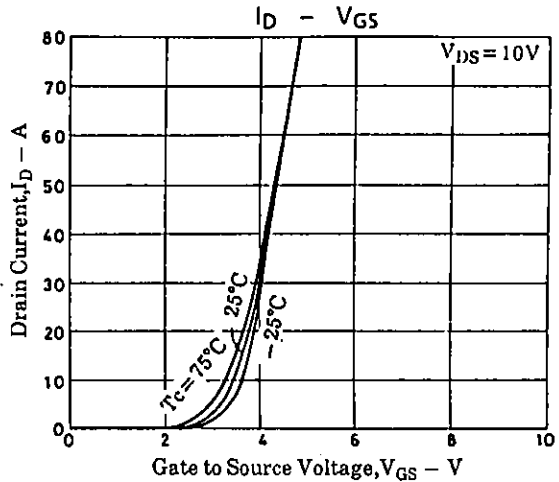
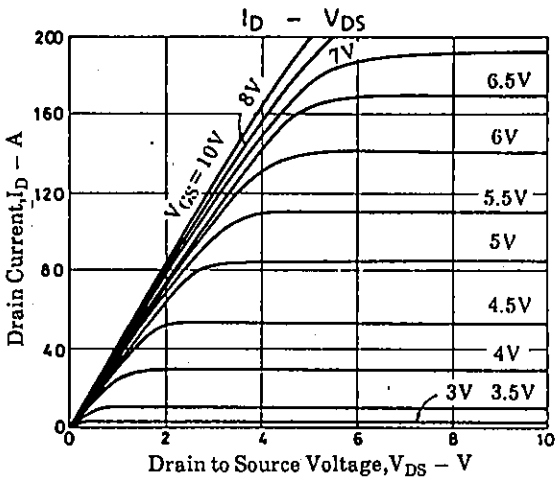
(unit : mm)

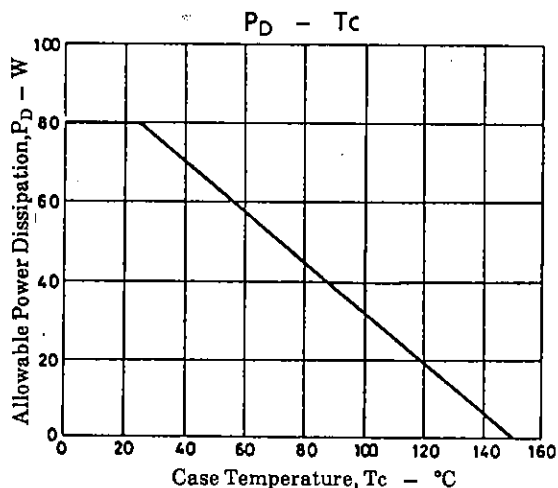
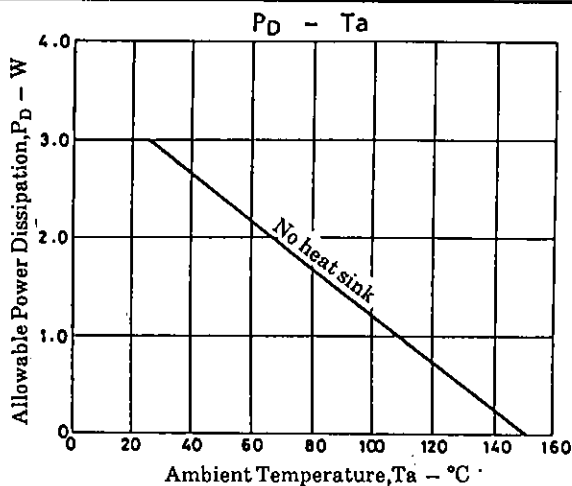
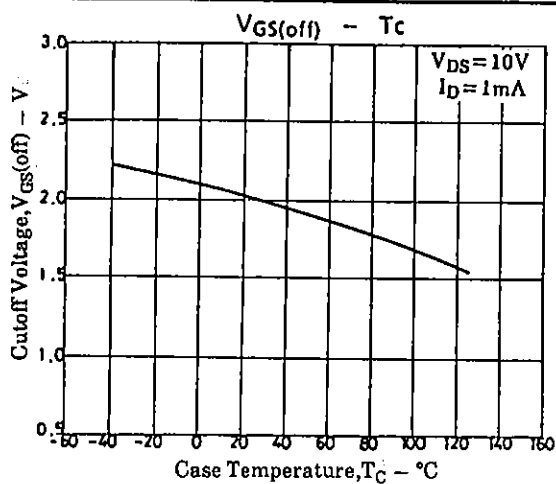


S: Source
D: Drain
G: Gate

SANYO: TO-3PML

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