

<b>SANYO</b>	No.3561	<b>2SK1423</b>
		N-Channel MOS Silicon FET

**Very High-Speed  
Switching Applications**

**Features**

- Low ON-state resistance.
- Very high-speed switching.
- Converters.

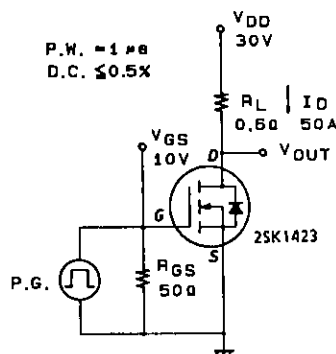
**Absolute Maximum Ratings at Ta = 25°C**

			unit
Drain to Source Voltage	V <sub>DSS</sub>	60	V
Gate to Source Voltage	V <sub>GSS</sub>	±20	V
Drain Current(DC)	I <sub>D</sub>	80	A
Drain Current(Pulse)	I <sub>DP</sub>	PW ≤ 10 μs, duty cycle ≤ 1%	320 A
Allowable Power Dissipation	P <sub>D</sub>	T <sub>c</sub> = 25°C	150 W
			2.5 W
Channel Temperature	T <sub>ch</sub>		150 °C
Storage Temperature	T <sub>stg</sub>		-55 to +150 °C

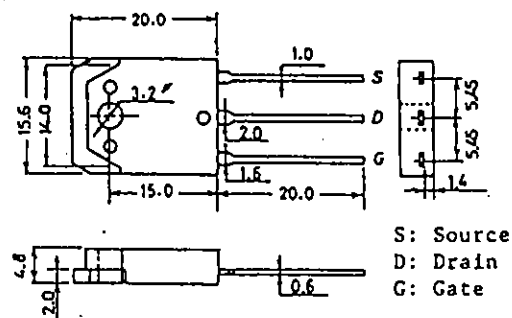
**Electrical Characteristics at Ta = 25°C**

		min	typ	max	unit
D-S Breakdown Voltage	V <sub>(BR)DSS</sub> I <sub>D</sub> = 1mA, V <sub>GS</sub> = 0	60			V
Zero Gate Voltage Drain Current	I <sub>DSS</sub> V <sub>DS</sub> = 60V, V <sub>GS</sub> = 0			100	μA
Gate to Source Leakage Current	I <sub>GSS</sub> V <sub>GS</sub> = ±20V, V <sub>DS</sub> = 0			±100	nA
Cutoff Voltage	V <sub>GS(off)</sub> V <sub>DS</sub> = 10V, I <sub>D</sub> = 1mA	1.5		2.5	V
Forward Transfer Admittance	Y <sub>fs</sub>   V <sub>DS</sub> = 10V, I <sub>D</sub> = 50A	30	50		S
Static Drain to Source on State Resistance	R <sub>DS(on)</sub> I <sub>D</sub> = 50A, V <sub>GS</sub> = 10V	0.012	0.016		Ω
Input Capacitance	C <sub>iss</sub> V <sub>DS</sub> = 20V, f = 1MHz		4800		pF
Output Capacitance	C <sub>oss</sub> V <sub>DS</sub> = 20V, f = 1MHz		2200		pF
Reverse Transfer Capacitance	C <sub>rss</sub> V <sub>DS</sub> = 20V, f = 1MHz		600		pF
Turn-ON Delay Time	t <sub>d(on)</sub>		55		ns
Rise Time	t <sub>r</sub>	I <sub>D</sub> = 50A, V <sub>GS</sub> = 10V		345	ns
Turn-OFF Delay Time	t <sub>d(off)</sub>	V <sub>DD</sub> = 30V, R <sub>GS</sub> = 50Ω		450	ns
Fall Time	t <sub>f</sub>		400		ns
Diode Forward Voltage	V <sub>SD</sub> I <sub>S</sub> = 80A, V <sub>GS</sub> = 0			1.8	V

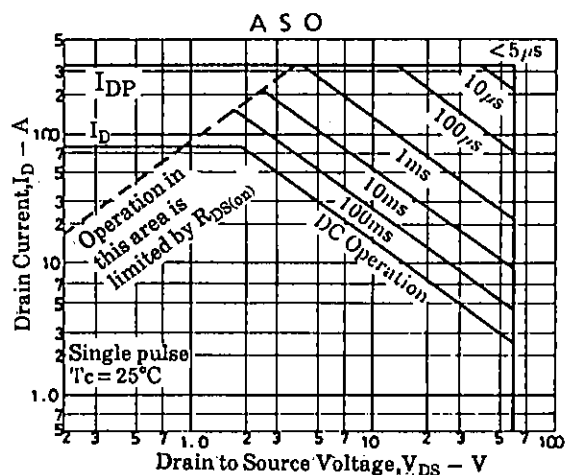
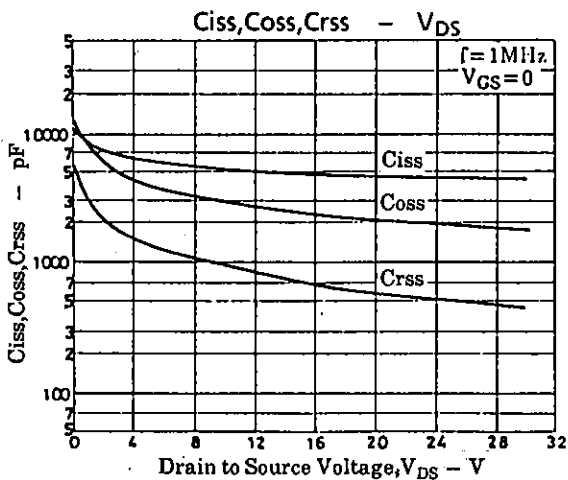
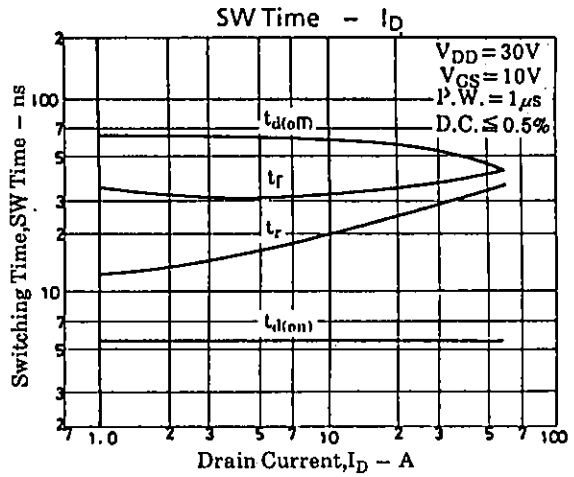
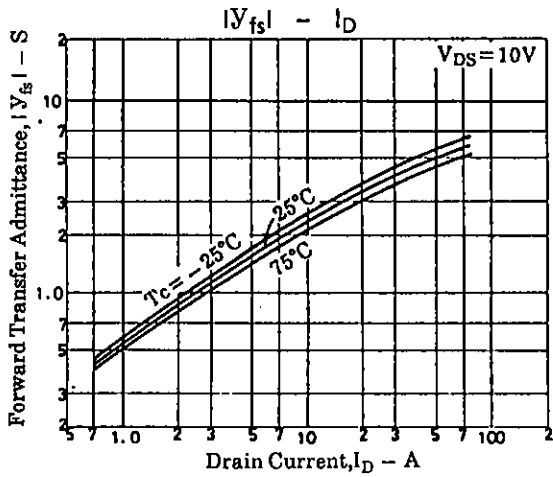
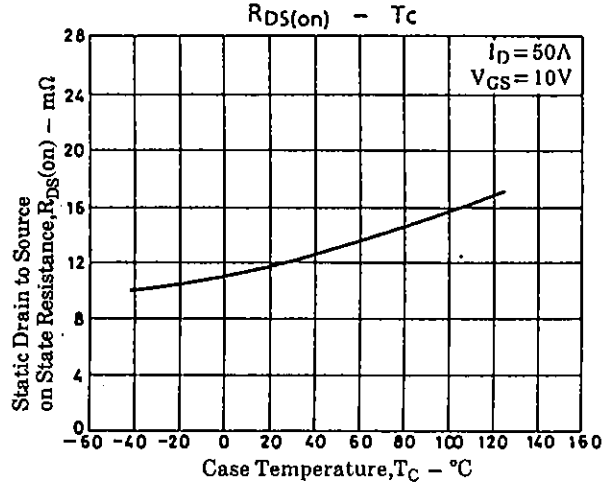
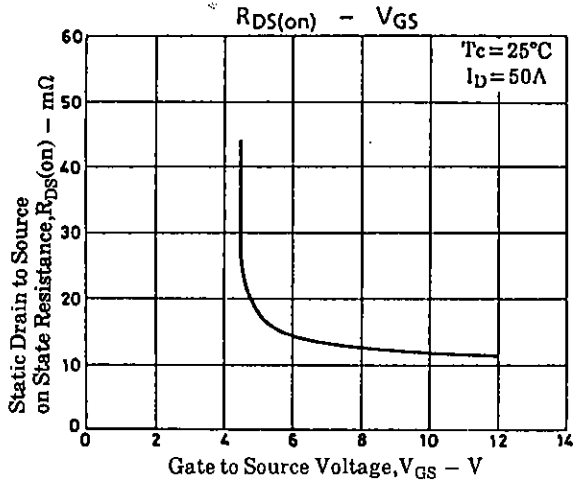
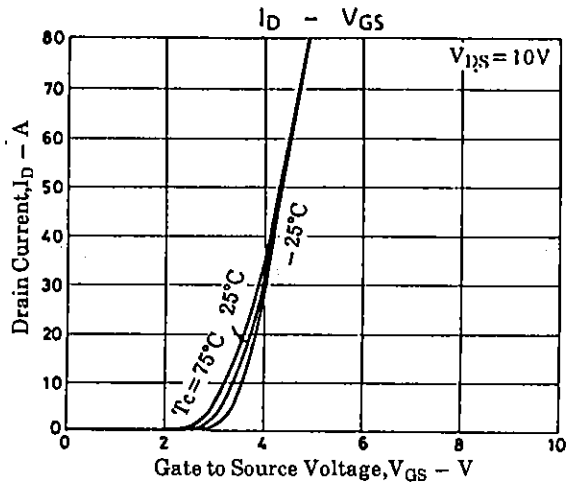
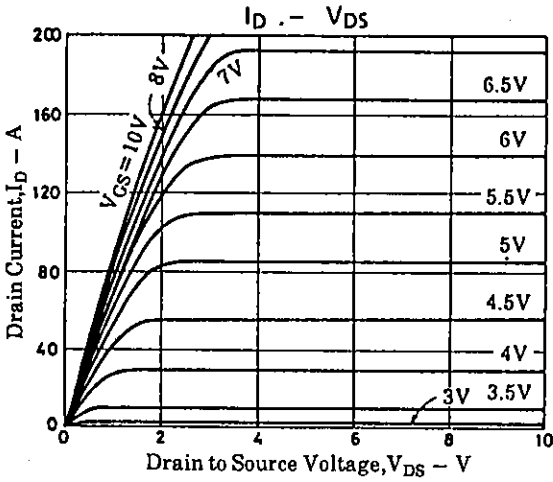
(Note) Be careful in handling the 2SK1423 because it has no protection diode between gate and source.

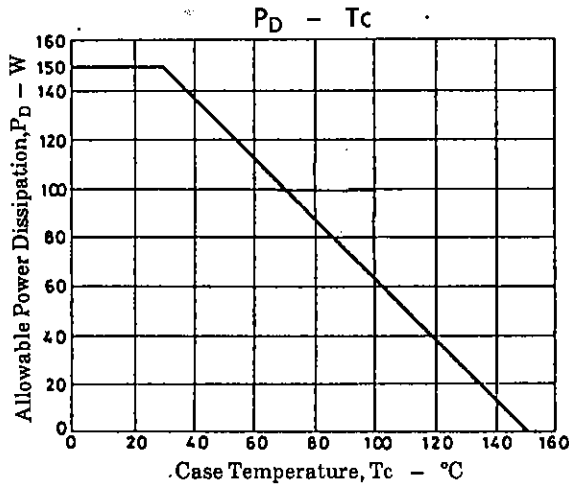
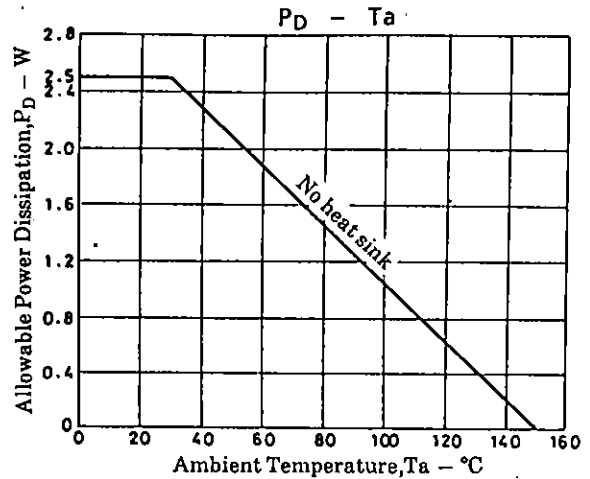
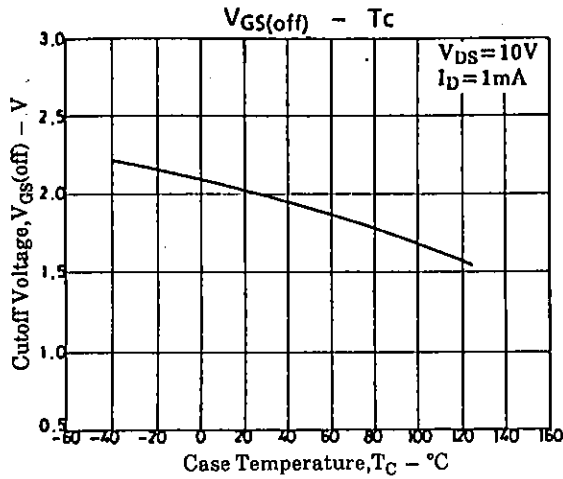
**Switching Time Test Circuit****Package Dimensions 2056**

(unit: mm)



SANYO: TO3PB





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