

SANYO	No.3561	2SK1423
		N-Channel MOS Silicon FET

**Very High-Speed
Switching Applications**

Features

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

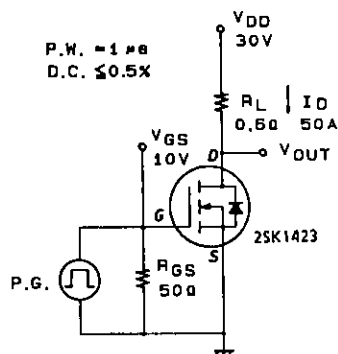
Absolute Maximum Ratings at Ta = 25°C

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

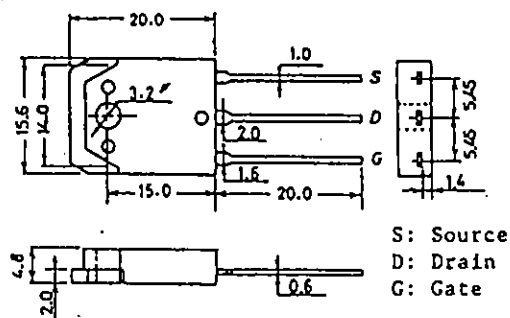
Electrical Characteristics at Ta = 25°C

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

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

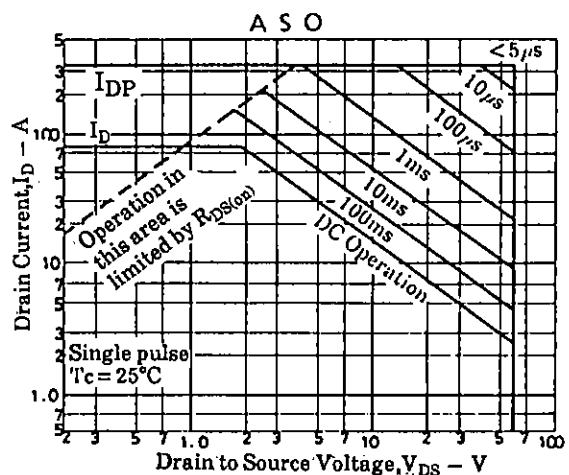
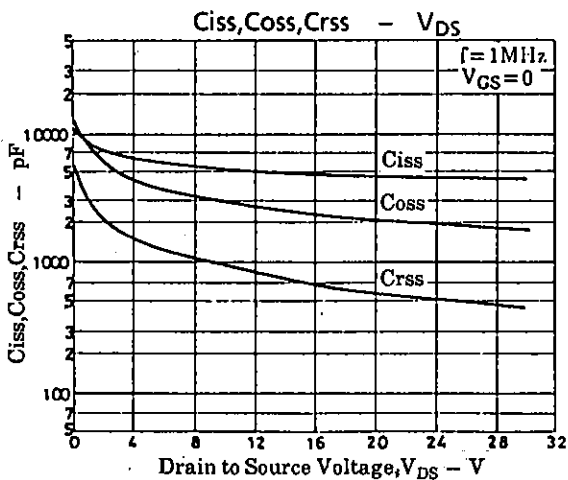
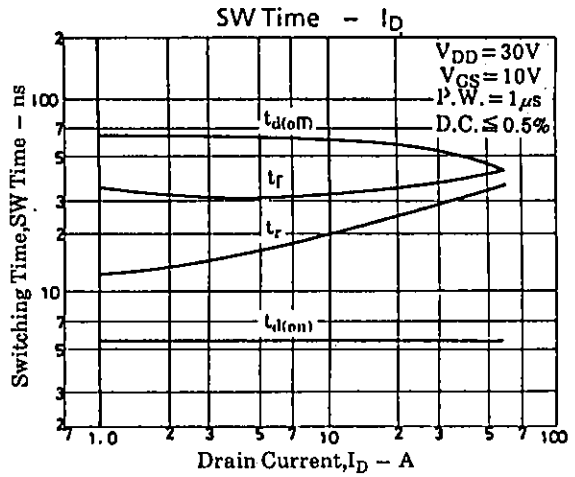
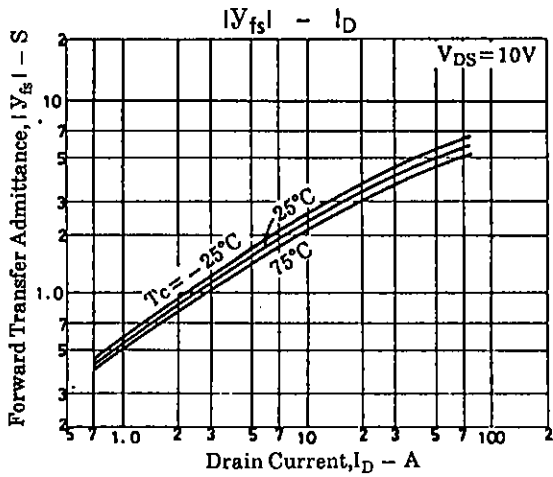
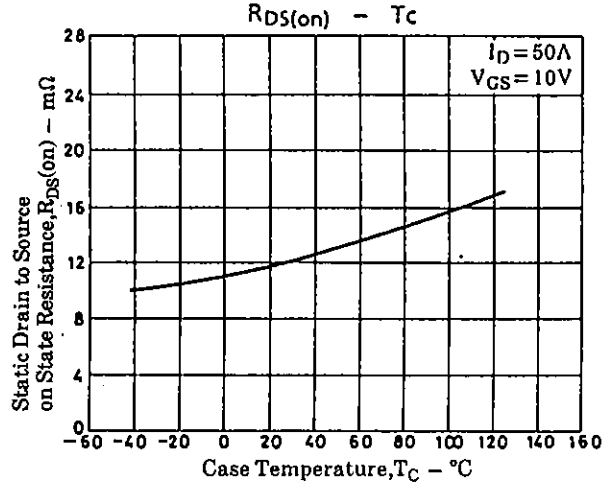
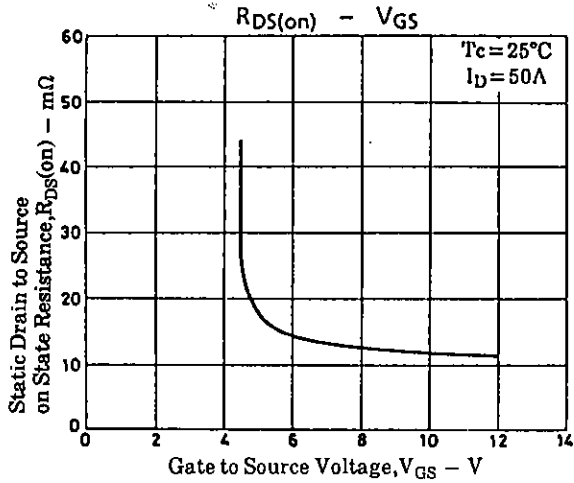
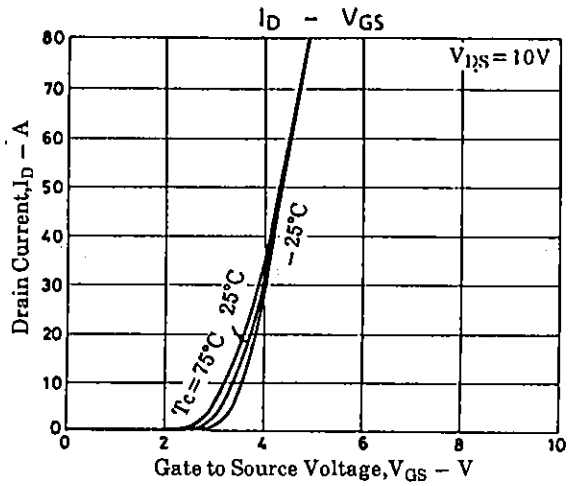
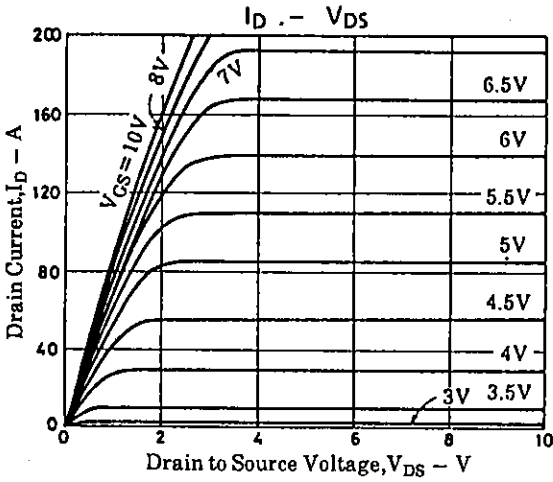
Switching Time Test Circuit**Package Dimensions 2056**

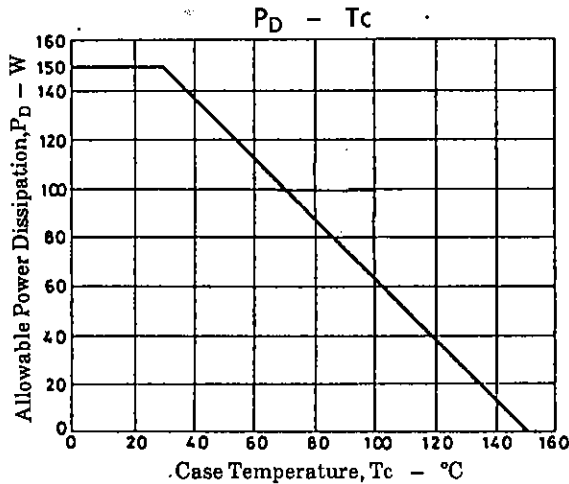
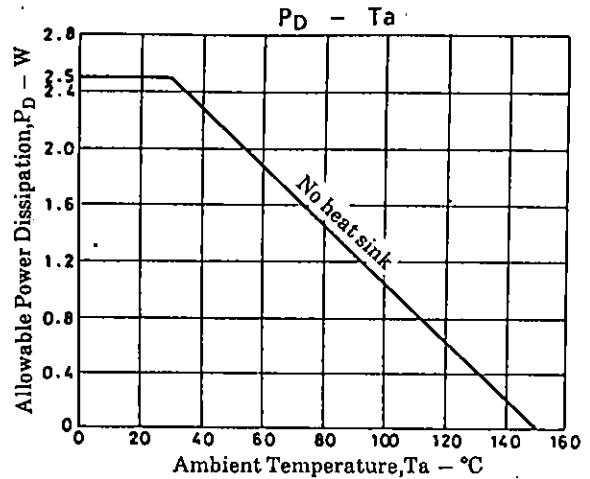
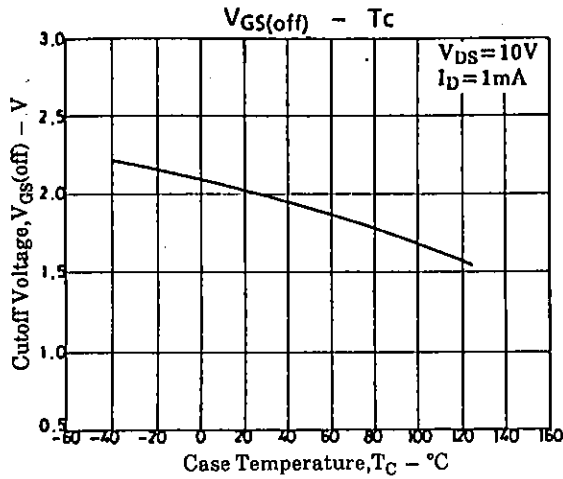
(unit: mm)



SANYO: TO3PB

2SK1423





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