

<b>SANYO</b>	No.3455	<b>2SK1452</b>
		N-Channel MOS Silicon FET
<b>Very High-Speed Switching Applications</b>		

**Features**

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

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

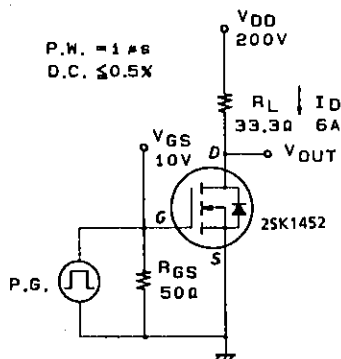
			unit
Drain to Source Voltage	V <sub>DS</sub>	450	V
Gate to Source Voltage	V <sub>GS</sub>	± 30	V
Drain Current(DC)	I <sub>D</sub>	10	A
Drain Current(Pulse)	I <sub>DP</sub>	PW ≤ 10 μs, duty cycle ≤ 1%	A
Allowable Power Dissipation	P <sub>D</sub>	Tc = 25°C	60 W
			3.0 W
Channel Temperature	T <sub>ch</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	- 55 to + 150	°C

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

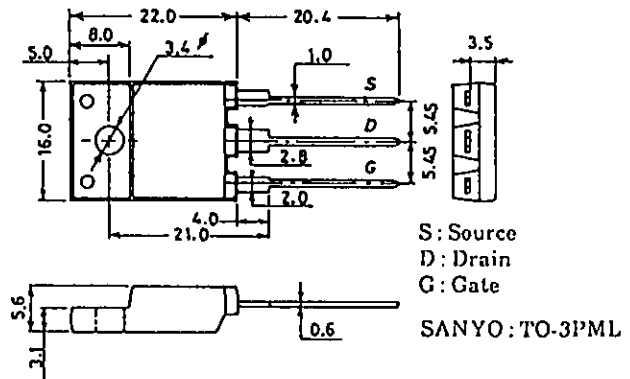
			min	typ	max	unit
D-S Breakdown Voltage	V <sub>(BR)DSS</sub>	I <sub>D</sub> = 1mA, V <sub>GS</sub> = 0	450			V
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = 450V, V <sub>GS</sub> = 0			1.0	mA
Gate to Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> = ± 30V, V <sub>DS</sub> = 0			± 100	nA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> = 10V, I <sub>D</sub> = 1mA	2.0		3.0	V
Forward Transfer Admittance	Y <sub>fs</sub>	V <sub>DS</sub> = 10V, I <sub>D</sub> = 6A	4.0	8.0		S
Static Drain to Source On State Resistance	R <sub>DS(on)</sub>	I <sub>D</sub> = 6A, V <sub>GS</sub> = 10V		0.47	0.6	Ω
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> = 20V, f = 1MHz		1600		pF
Output Capacitance	C <sub>oss</sub>	V <sub>DS</sub> = 20V, f = 1MHz		220		pF
Reverse Transfer Capacitance	C <sub>rss</sub>	V <sub>DS</sub> = 20V, f = 1MHz		80		pF
Turn-ON Delay Time	t <sub>d(on)</sub>	I <sub>D</sub> = 6A, V <sub>GS</sub> = 10V V <sub>DD</sub> = 200V, R <sub>GS</sub> = 50Ω		25		ns
Rise Time	t <sub>r</sub>		60		ns	
Turn-OFF Delay Time	t <sub>d(off)</sub>		250		ns	
Fall Time	t <sub>f</sub>		80		ns	
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> = 10A, V <sub>GS</sub> = 0			1.8	V

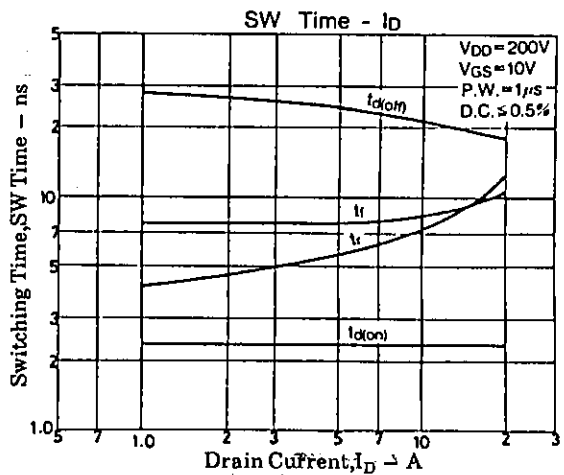
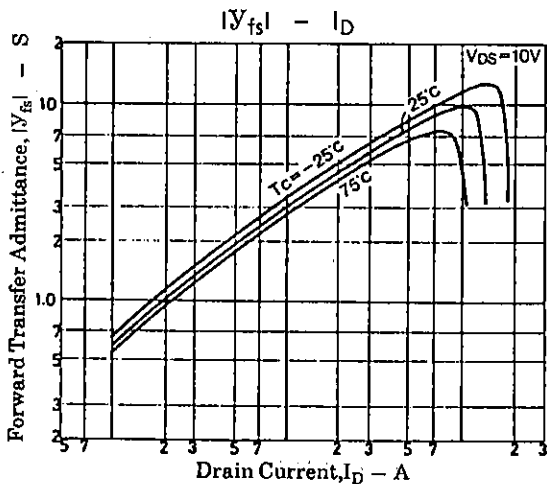
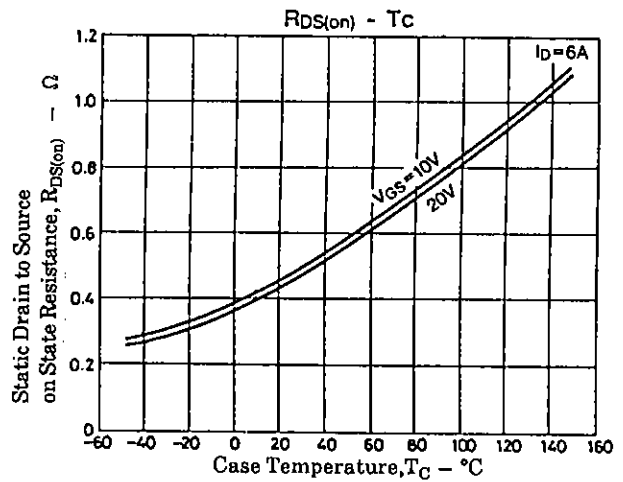
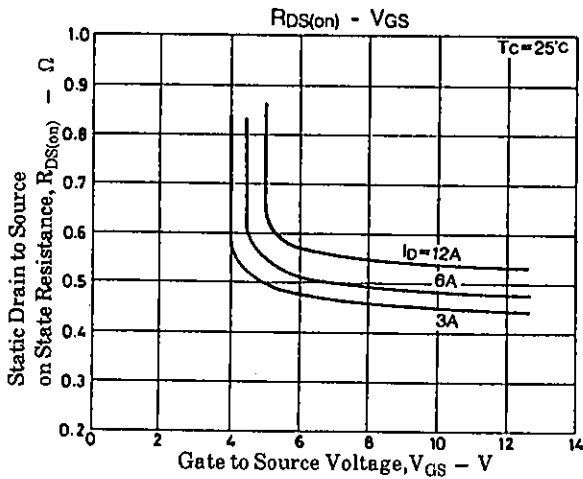
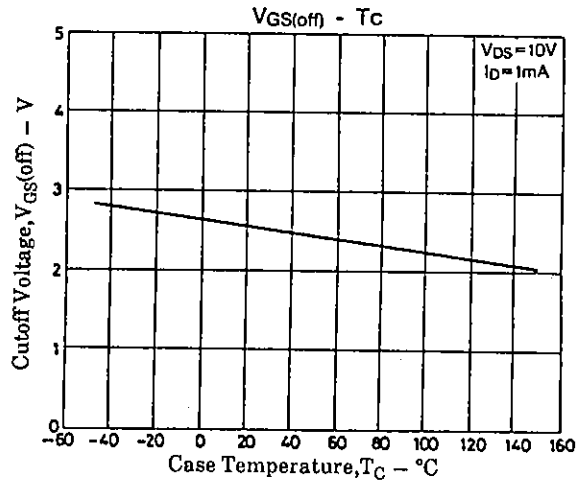
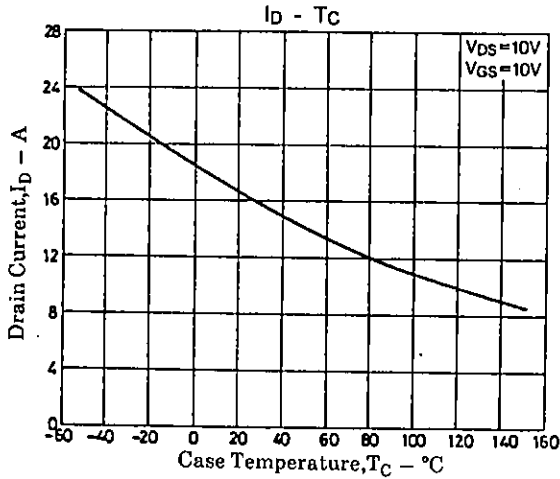
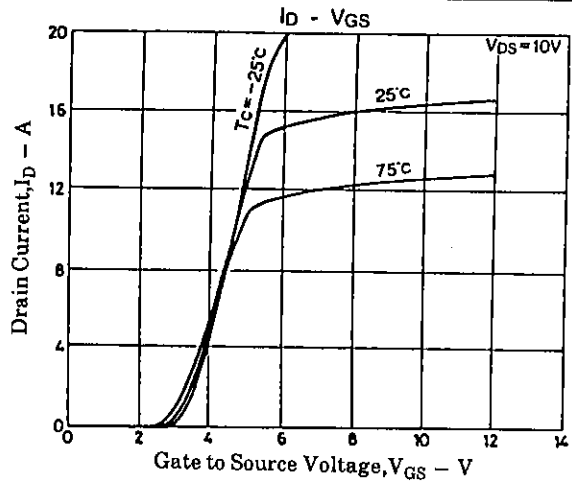
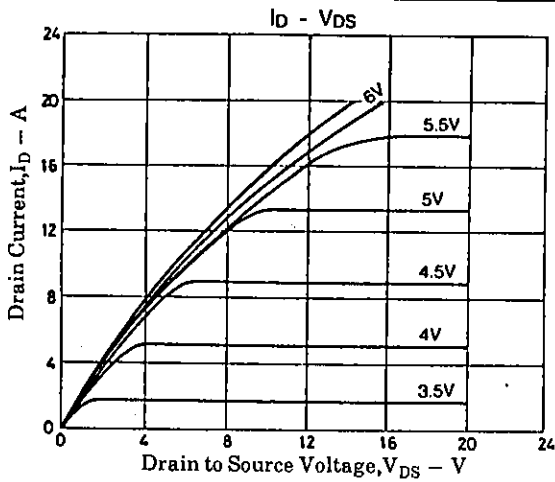
(Note) Be careful in handling the 2SK1452 because it has no protection diode between gate and source.

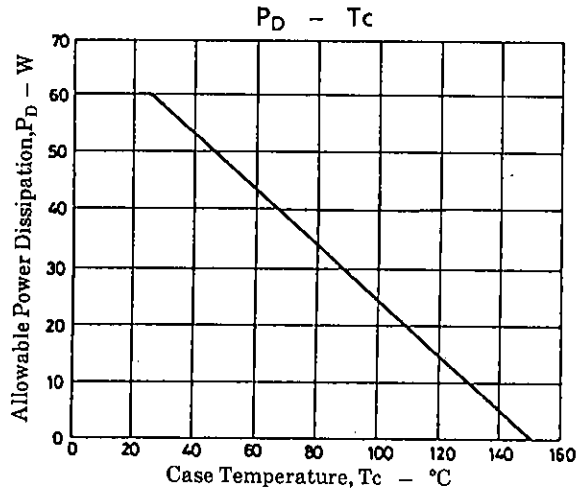
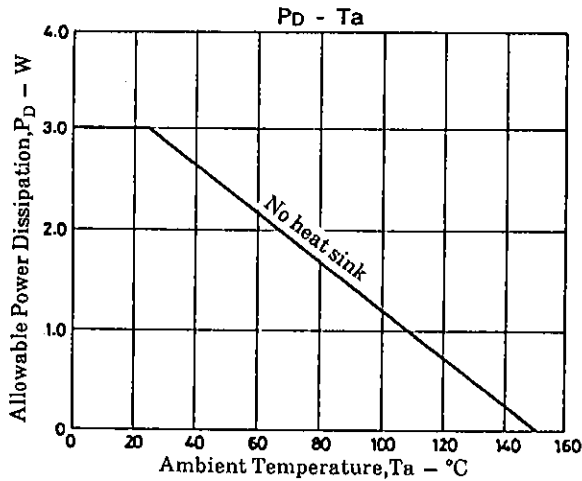
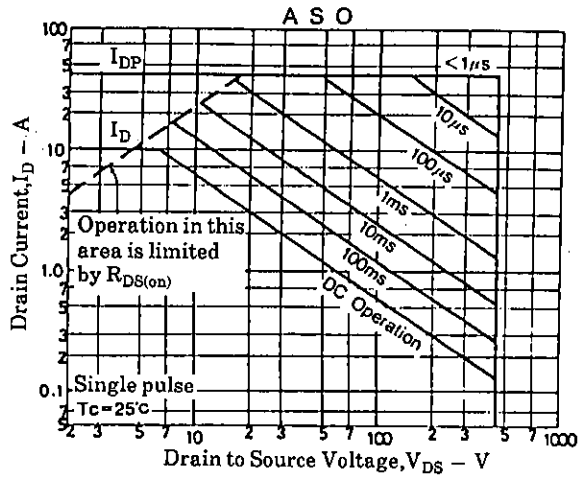
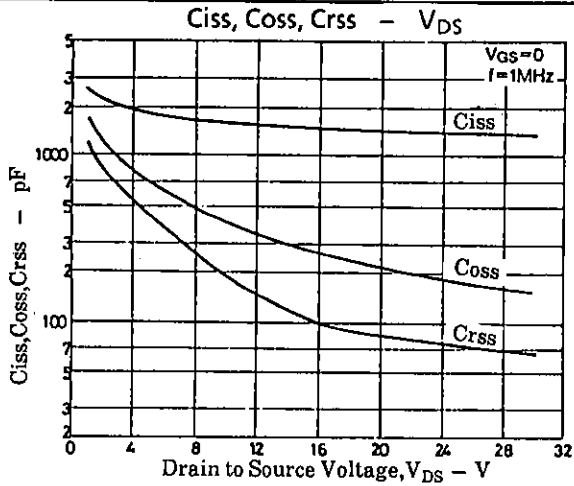
**Switching Time Test Circuit**



**Package Dimensions 2076**  
(unit : mm)







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