



No.4601A

2SK2161

N-Channel MOS Silicon FET
Very High-Speed
Switching Applications

Features

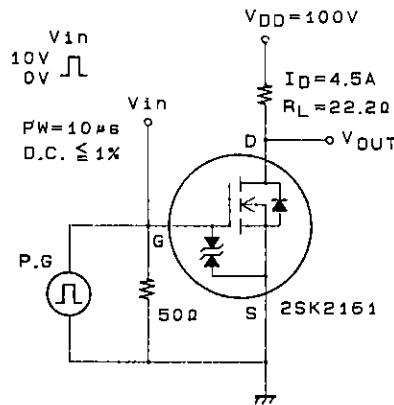
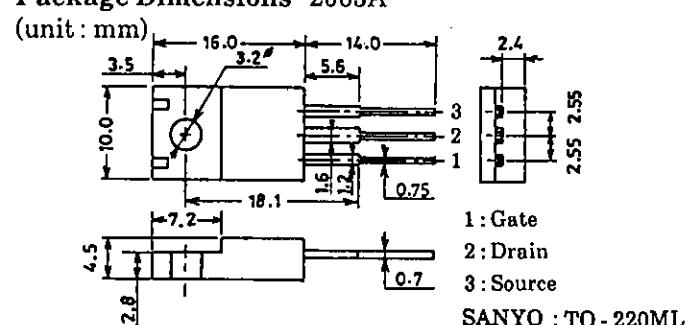
- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Micaless package facilitating mounting.

Absolute Maximum Ratings at Ta = 25°C

			unit
Drain-to-Source Voltage	V _{DSS}	200	V
Gate-to-Source Voltage	V _{GSS}	±20	V
Drain Current(DC)	I _D	9	A
Drain Current(Pulse)	I _{DP}	PW ≤ 10 μs, duty cycle ≤ 1%	A
Allowable Power Dissipation	P _D	36	A
		2.0	W
		25	W
Channel Temperature	T _{ch}	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

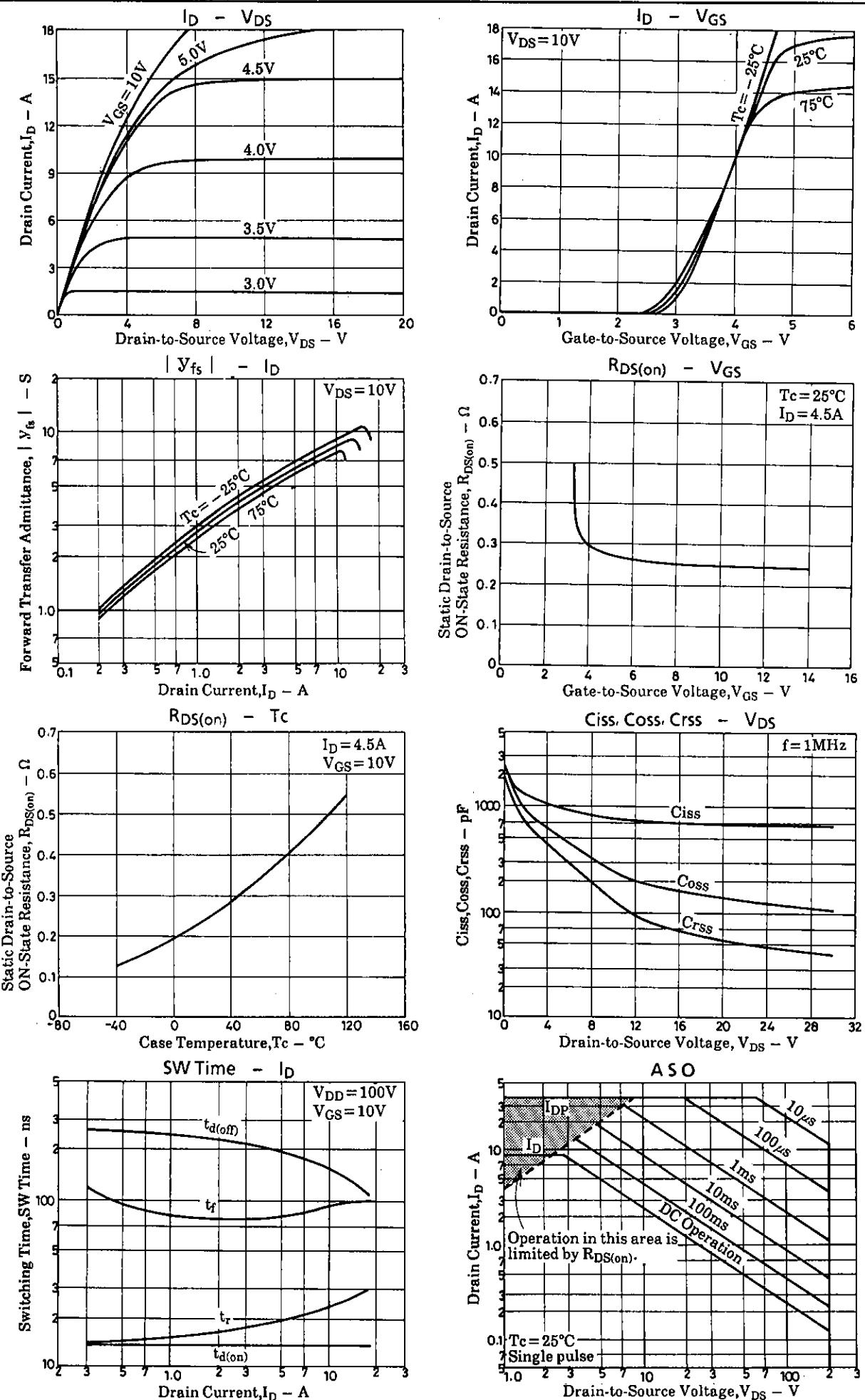
Electrical Characteristics at Ta = 25°C

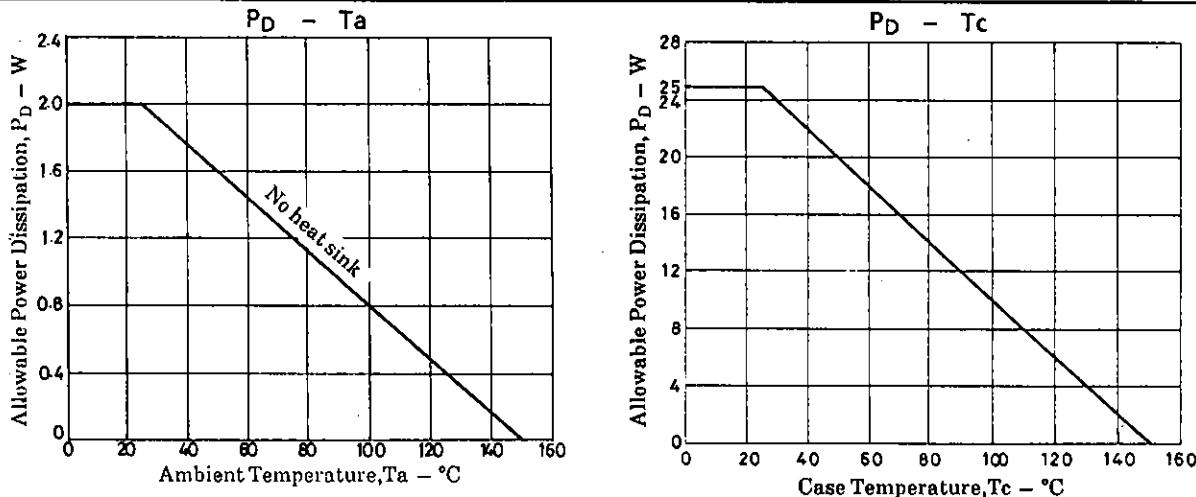
			min	typ	max	unit
D-S Breakdown Voltage	V _{(BR)DSS}	I _D = 1mA, V _{GS} = 0	200			V
G-S Breakdown Voltage	V _{(BR)GSS}	I _G = ±100 μA, V _{DS} = 0	±20			V
Zero-Gate Voltage	I _{DSS}	V _{DS} = 200V, V _{GS} = 0			100	μA
Drain Current						
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} = ±16V, V _{DS} = 0			±10	μA
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 = 4.5A	3.5	6		S
Static Drain-to-Source	R _{DS(on)}	I _D = 4.5A, V _{GS} = 10V	250	350		mΩ
ON-State Resistance						
Input Capacitance	C _{iss}	V _{DS} = 20V, f = 1MHz	700			pF
Output Capacitance	C _{oss}	V _{DS} = 20V, f = 1MHz	140			pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} = 20V, f = 1MHz	55			pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit.	14			ns
Rise Time	t _r	"	19			ns
Turn-OFF Delay Time	t _{d(off)}	"	200			ns
Fall Time	t _f	"	80			ns
Diode Forward Voltage	V _{SD}	I _S = 9A, V _{GS} = 0	1.0	1.5		V

Switching Time Test Circuit**Package Dimensions 2063A**

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