



Ultrahigh-Speed Switching Applications

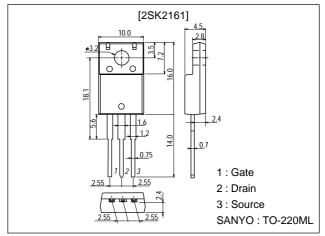
Features

- · Low ON resistance.
- · Ultrahigh-speed switching.
- · Low-voltage drive.
- · Micaless package facilitating mounting.

Package Dimensions

unit:mm

2063A



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		200	V
Gate-to-Source Voltage	VGSS		±20	V
Drain Current (DC)	ID		9	Α
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	36	Α
Allowable Power Dissipation	PD		2.0	W
		Tc=25°C	25	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Oille
Drain-to-Source Breakdown Voltage	V(BR)DSS	I _D =1mA, V _{GS} =0	200			V
Gate-to-Source Breakdown Voltage	V(BR)GSS	I _G =±100μA, V _{DS} =0	±20			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =200V, V _{GS} =0			100	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±16V, V _{DS} =0			±10	μA
Cutoff Voltage	VGS(off)	V _{DS} =10V, I _D = 1mA	1.5		2.5	V
Forward Transfer Admittance	yfs	V _{DS} =10V, I _D =4.5 A	3.5	6		S
Static Drain-to-Source ON-State Resistance	R _{DS(on)}	I _D =4.5A, V _{GS} =10V		250	350	mΩ

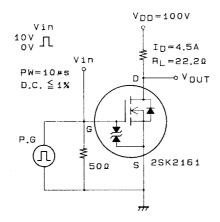
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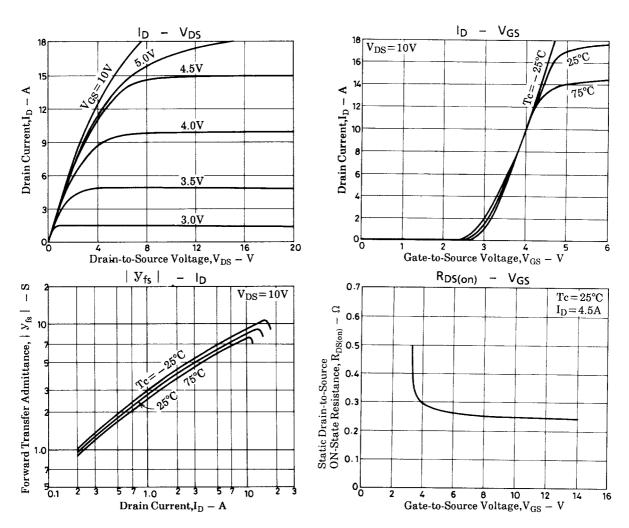
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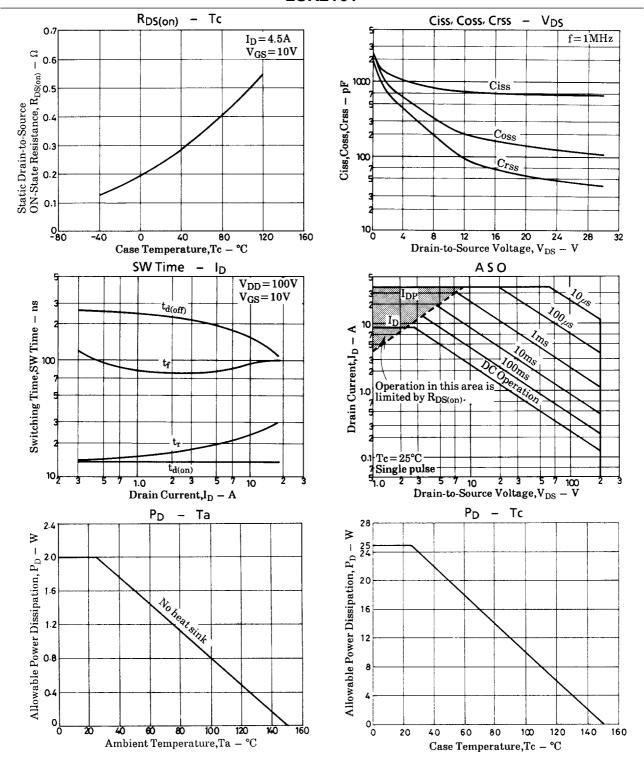
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Oill
Input Capacitance	Ciss	V _{DS} =20V, f=1MHz		700		pF
Output Capacitance	Coss	V _{DS} =20V, f=1MHz		140		pF
Reverse Transfer Capacitance	Crss	V _{DS} =20V, f=1MHz		55		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit		14		ns
Rise Time	t _r	See specified Test Circuit		19		ns
Turn-OFF Delay Time	td(off)	See specified Test Circuit		200		ns
Fall Time	t _f	See specified Test Circuit		80		ns
Diode Forward Voltage	V _{SD}	I _S =9A, V _{GS} =0		1.0	1.5	V

Switching Time Test Circuit







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