

**2SK2951**

Ultrahigh-Speed Switching Applications

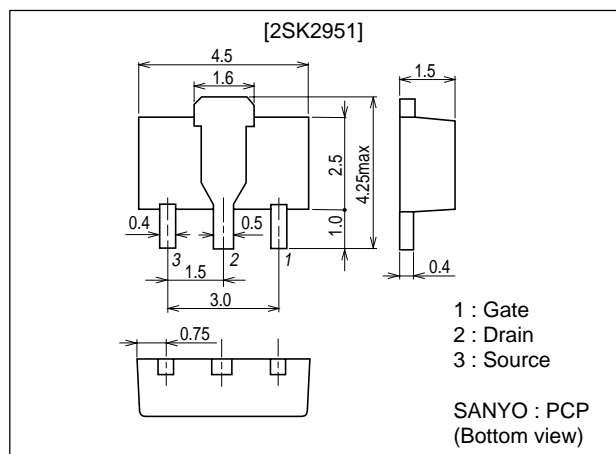
Features

- Low ON-resistance.
- Ultrahigh-speed switching.

Package Dimensions

unit : mm

2062A



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DS}		200	V
Gate-to-Source Voltage	V_{GS}		± 20	V
Drain Current (DC)	I_D		1	A
Drain Current (Pulse)	I_{DP}	$PW \leq 10\mu s$, duty cycle $\leq 1\%$	4	A
Allowable Power Dissipation	P_D	Mounted on a ceramic board (250mm ² ×0.8mm)	1.5	W
		$T_c = 25^\circ C$	3.5	W
Channel Temperature	T_{ch}		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1mA$, $V_{GS} = 0$	200			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 200V$, $V_{GS} = 0$			100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 15V$, $V_{DS} = 0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V$, $I_D = 1mA$	2.0		3.0	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 10V$, $I_D = 0.5A$	0.4	0.8		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)}$	$I_D = 0.5A$, $V_{GS} = 10V$		2.5	3.5	Ω

Marking : KS

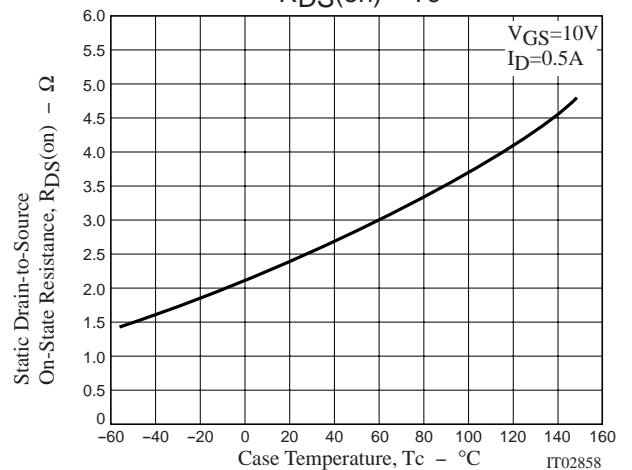
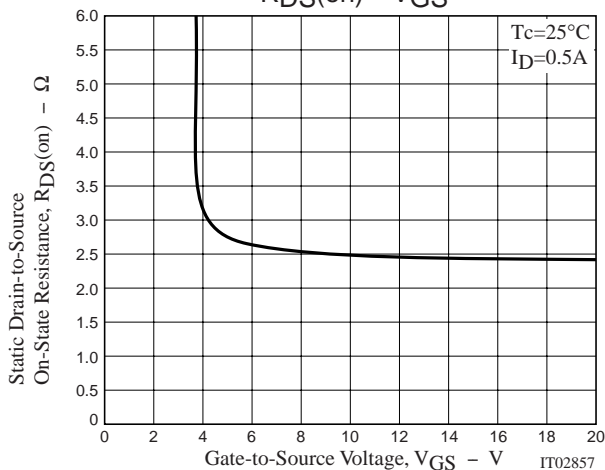
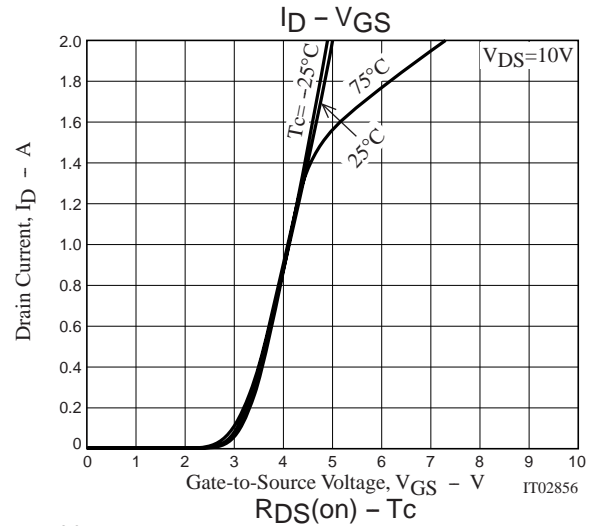
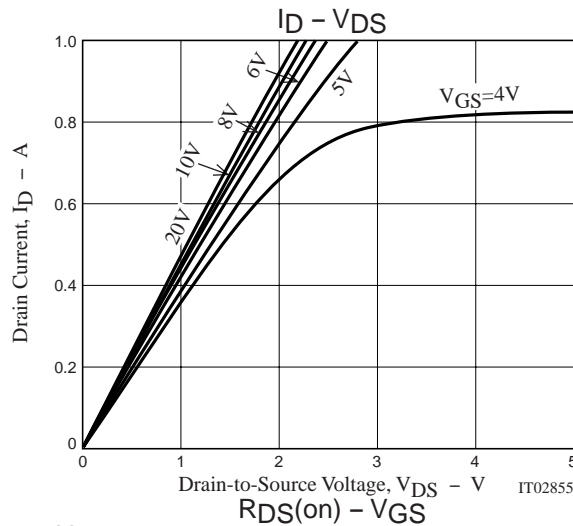
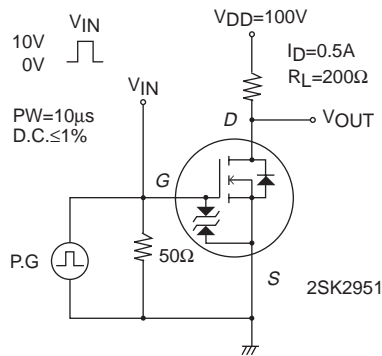
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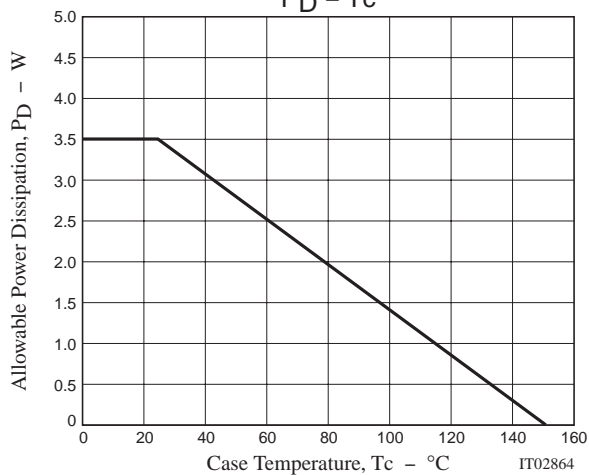
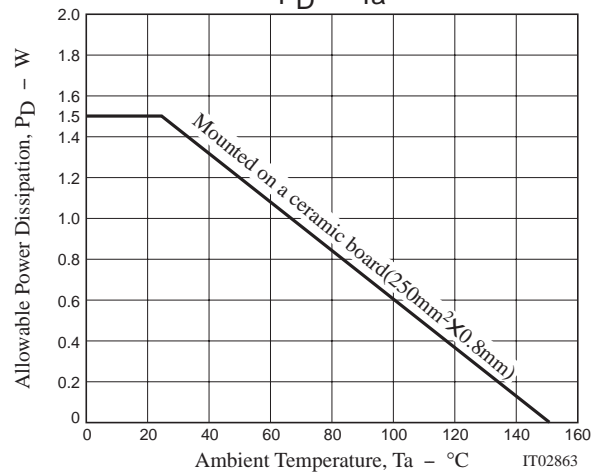
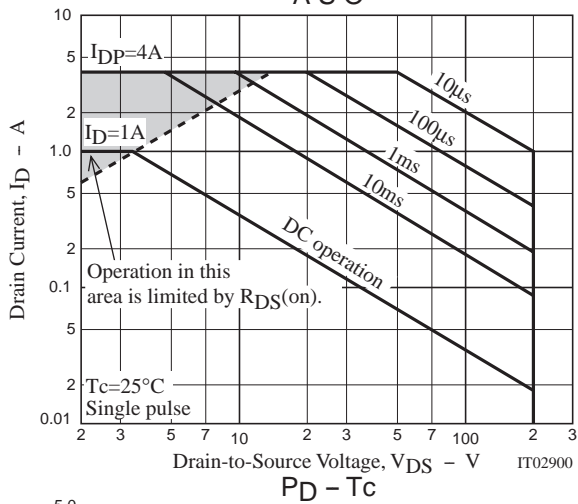
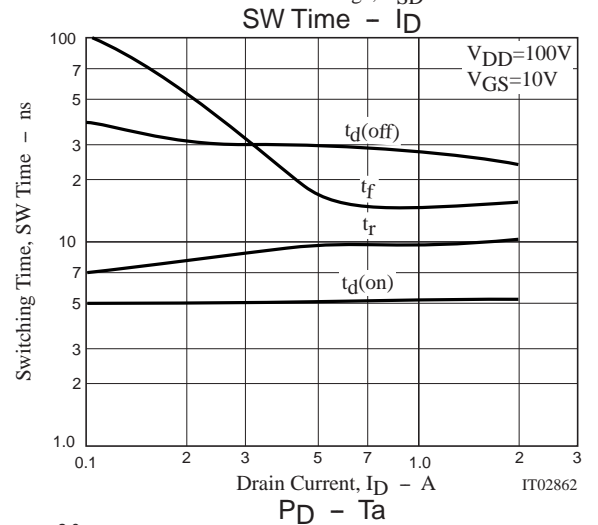
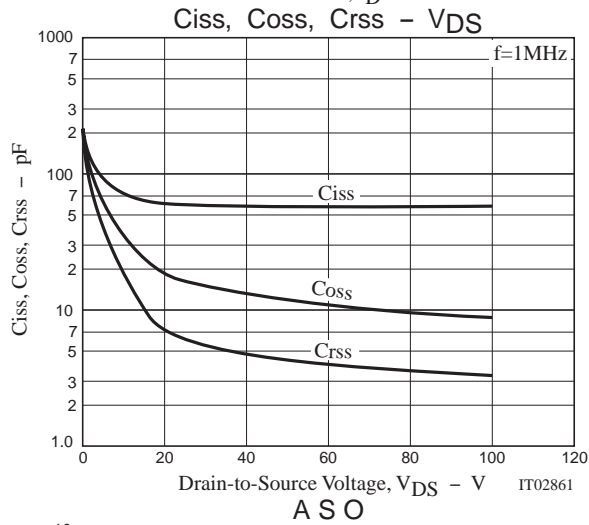
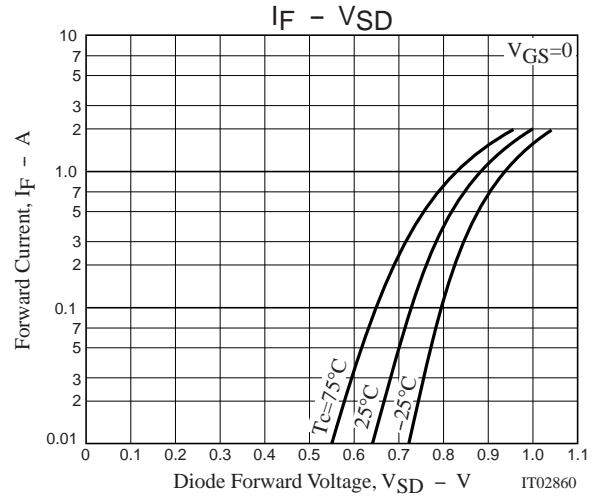
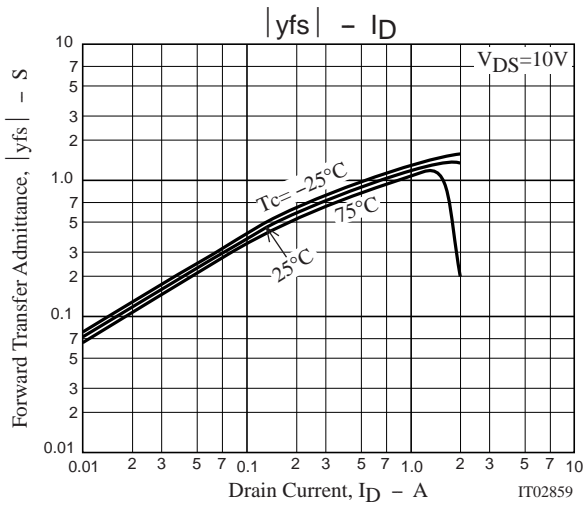
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	C_{iss}	$V_{DS}=20V, f=1MHz$		60		pF
Output Capacitance	C_{oss}	$V_{DS}=20V, f=1MHz$		18		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=20V, f=1MHz$		7		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit		5		ns
Rise Time	t_r	See specified Test Circuit		10		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit		30		ns
Fall Time	t_f	See specified Test Circuit		18		ns
Diode Forward Voltage	V_{SD}	$I_S=1A, V_{GS}=0$		1.0	1.5	V

Switching Time Test Circuit





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