



Ultrahigh-Speed Switching Applications

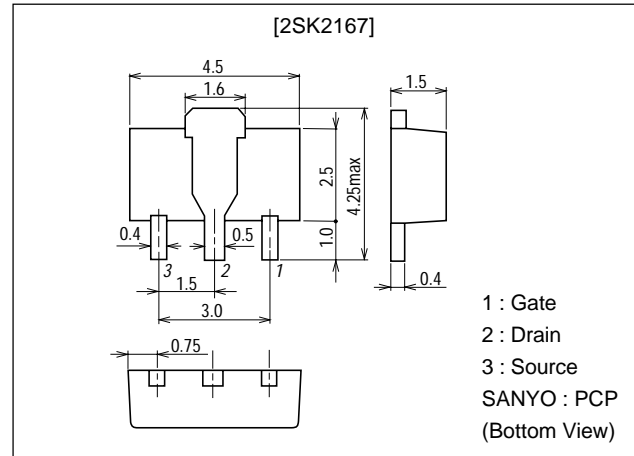
Features

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

Package Dimensions

unit:mm

2062A



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DS}		250	V
Gate-to-Source Voltage	V_{GS}		±20	V
Drain Current (DC)	I_D		400	mA
Drain Current (Pulse)	I_{DP}	$PW \leq 10\mu s$, duty cycle $\leq 1\%$	1.6	A
Allowable Power Dissipation	P_D	$T_c = 25^\circ C$	3.5	W
		Mounted on ceramic board (250mm ² × 0.8mm)	1.3	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	$V_{(BR)DSS}$	$I_D = 1mA$, $V_{GS} = 0$	250			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 250V$, $V_{GS} = 0$			100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 18V$, $V_{DS} = 0$			±10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V$, $I_D = 1mA$	1.5		2.5	V
Forward Transfer Admittance	yfs	$V_{DS} = 10V$, $I_D = 200mA$	270	400		mS
Static Drain-to-Source ON-State Resistance	$R_{DS(on)}$	$I_D = 200mA$, $V_{GS} = 10V$		8	12	Ω

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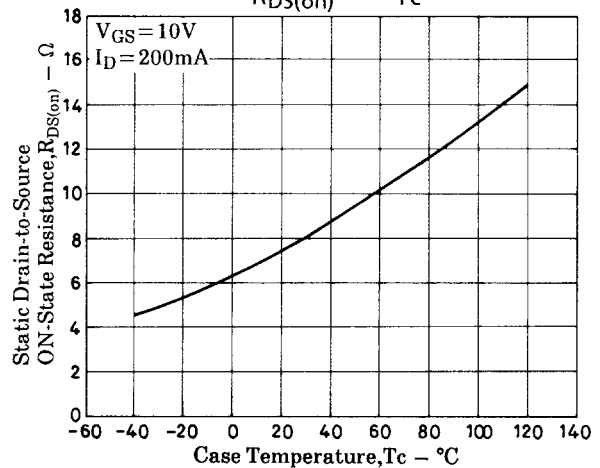
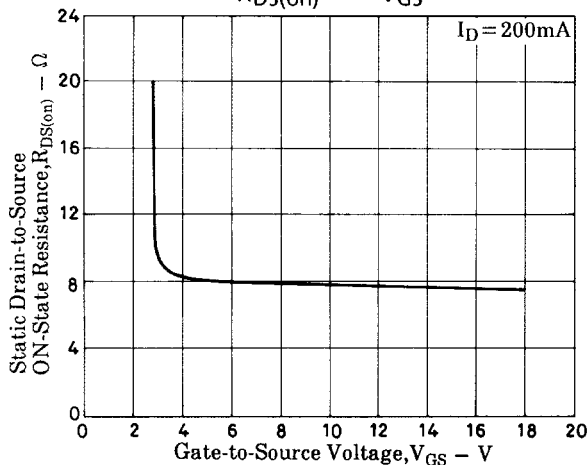
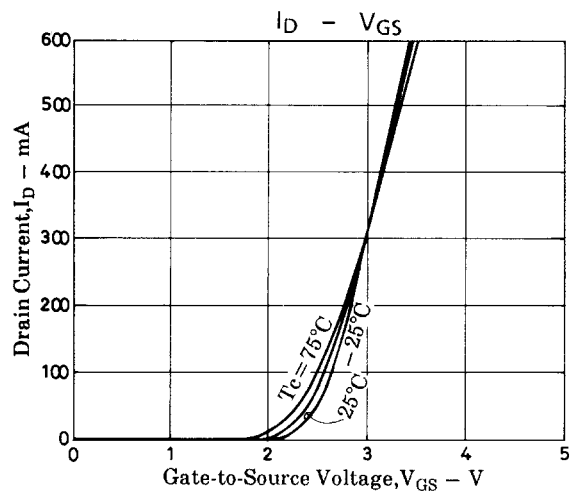
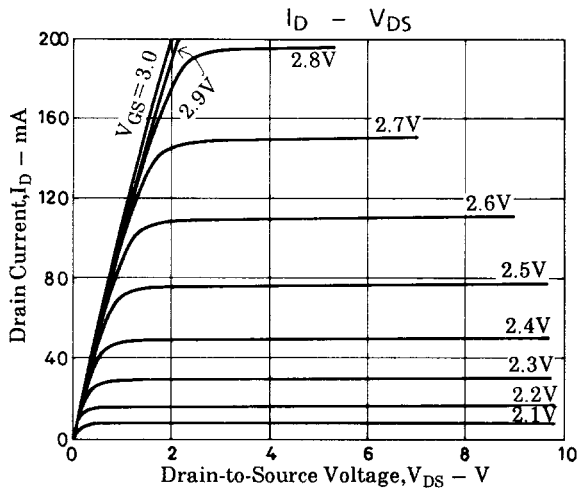
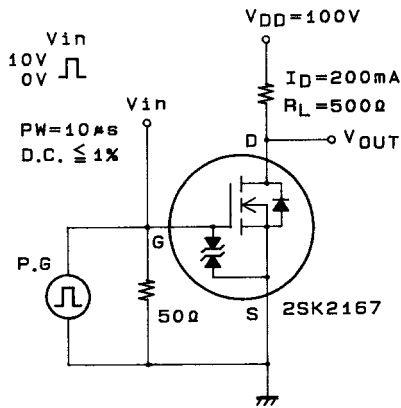
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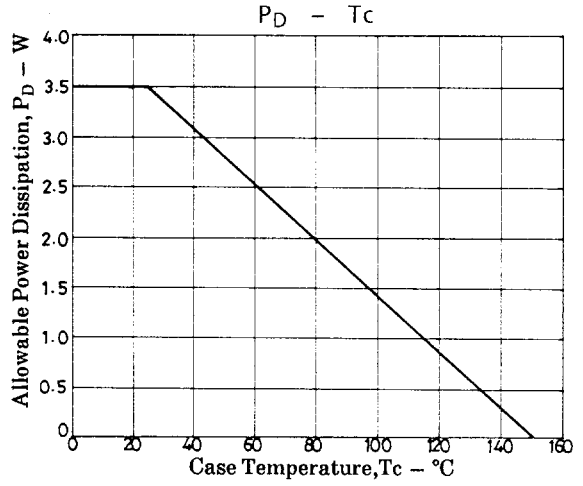
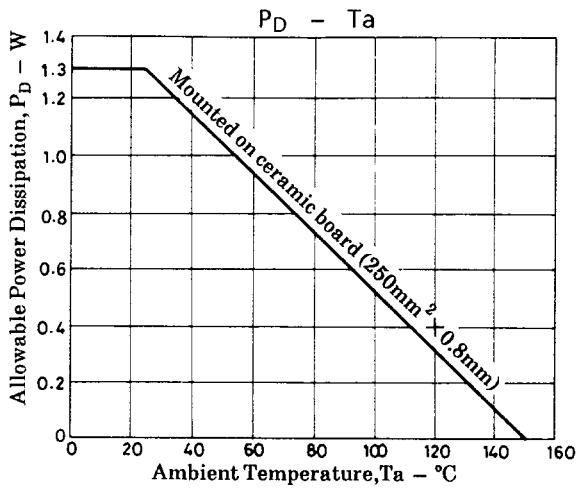
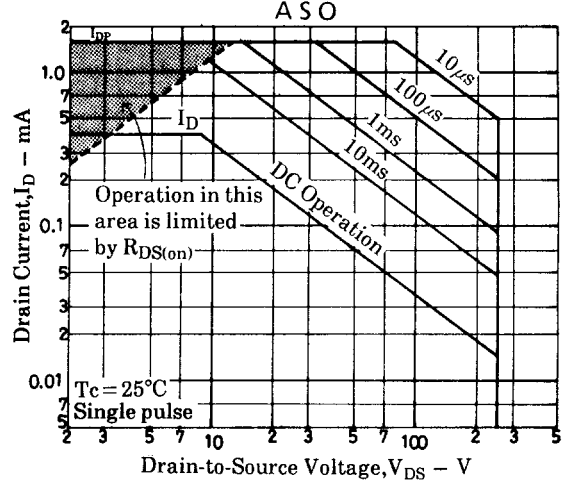
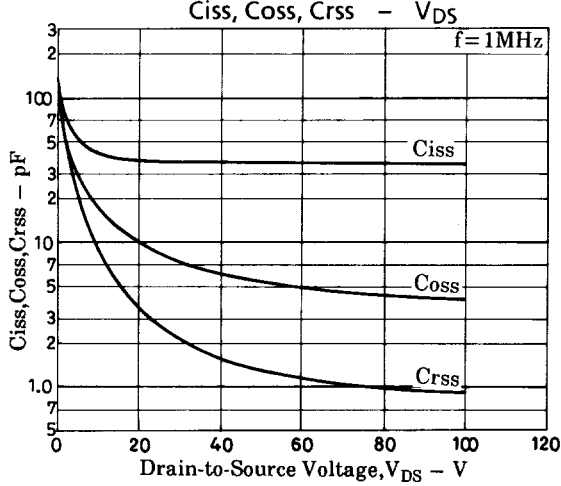
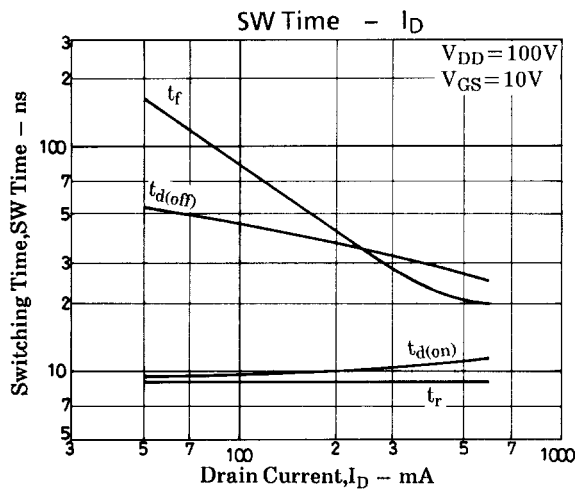
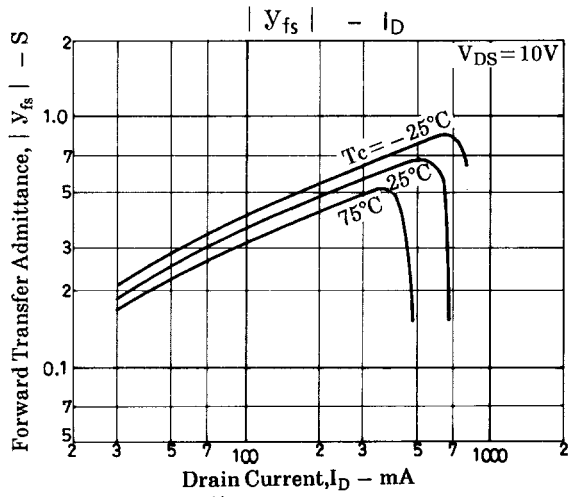
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	C _{iss}	V _{DS} =20V, f=1MHz		37		pF
Output Capacitance	C _{oss}	V _{DS} =20V, f=1MHz		10		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} =20V, f=1MHz		4		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit		10		ns
Rise Time	t _r	See specified Test Circuit		10		ns
Turn-OFF Delay Time	t _{d(off)}	See specified Test Circuit		35		ns
Fall Time	t _f	See specified Test Circuit		45		ns
Diode Forward Voltage	V _{SD}	I _S =400mA, V _{GS} =0		1.0		V

Switching Time Test Circuit



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