

Ordering number : EN5300A

N-Channel Silicon MOSFET

2SK2316

SANYO

Ultrahigh-Speed Switching Applications

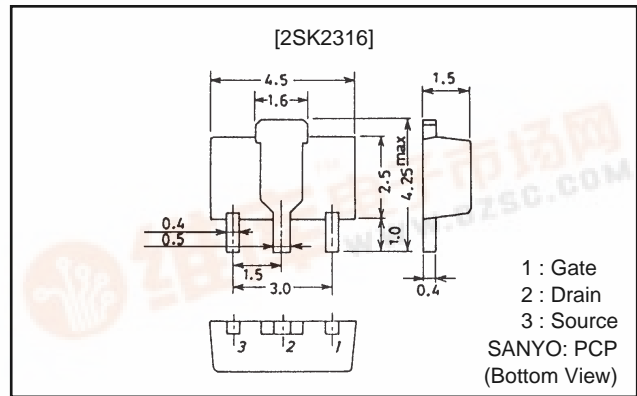
Features

- Low ON resistance.
- Ultrahigh-speed switching.
- Low-voltage drive (2.5V drive).

Package Dimensions

unit: mm

2062A-PCP



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		20	V
Gate-to-Source Voltage	V _{GSS}		±10	V
Drain Current (DC)	I _D		2	A
Drain Current (Pulse)	I _{DP}	PW≤10μd, duty cycle≤1%	8	A
Allowable Power Dissipation	P _D	Mounted on ceramic board (250mm ² ×0.8mm)	1.5	W
		T _c =25°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	
D-S Breakdown Voltage	V(BR)DSS	I _D =1mA, V _{GS} =0	20			V
G-S Breakdown Voltage	V(BR)GSS	I _G =±100μA, V _{DS} =0	±10			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =16V, V _{GS} =0			100	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±8V, V _{DS} =0			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{DS} =10V, I _D =1mA	0.5		1.5	V
Forward Transfer Admittance	y _{fs}	V _{DS} =10V, I _D =1A	1.8	2.8		S
Static Drain-to-Source ON-State Resistance	R _{DSON}	I _D =1A, V _{GS} =4V		140	200	mΩ
	R _{DSON}	I _D =1A, V _{GS} =2.5V		200	320	mΩ
Input Capacitance	C _{iss}	V _{DS} =10V, f=1MHz		170		pF
Output Capacitance	C _{oss}	V _{DS} =10V, f=1MHz		145		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} =10V, f=1MHz		50		pF

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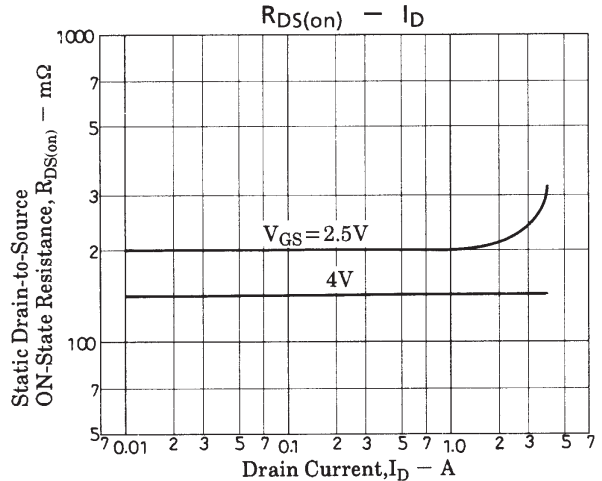
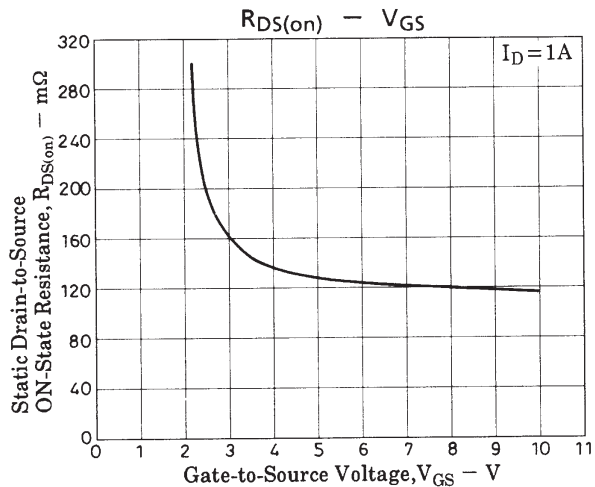
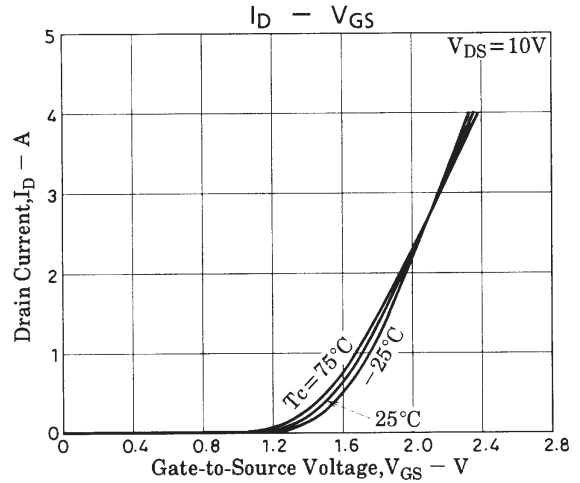
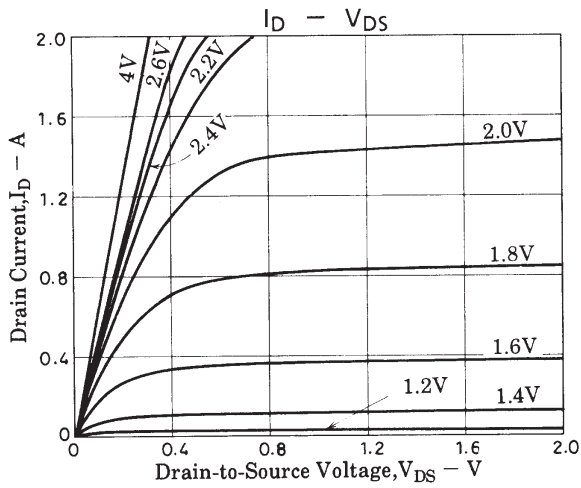
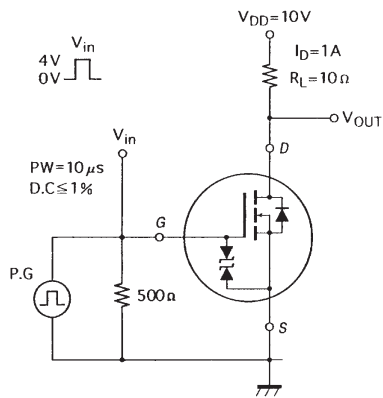
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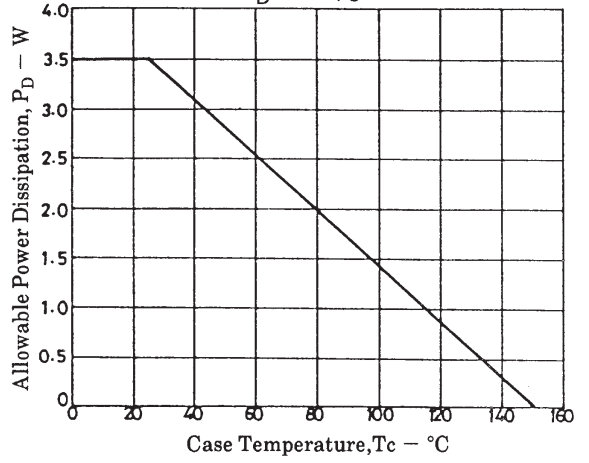
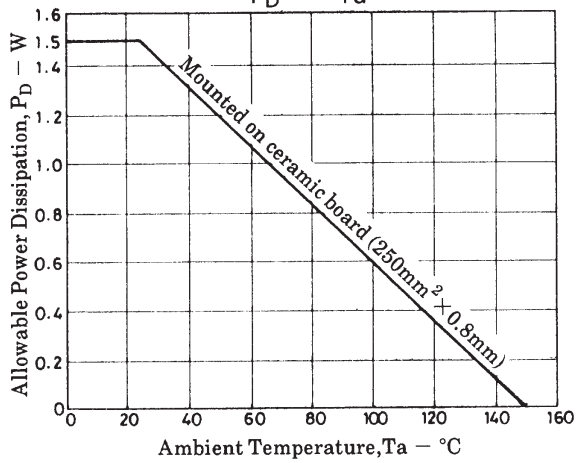
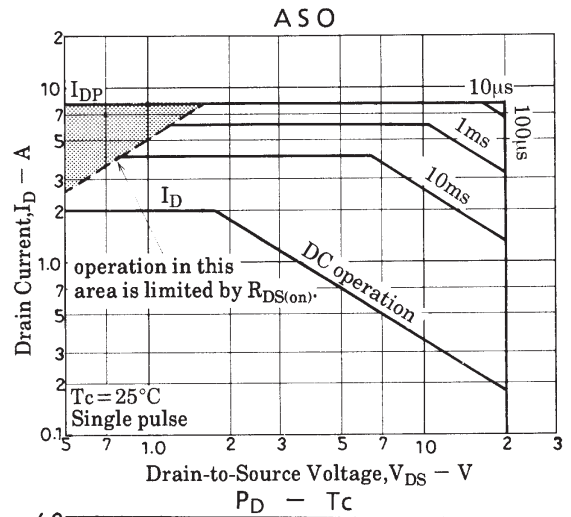
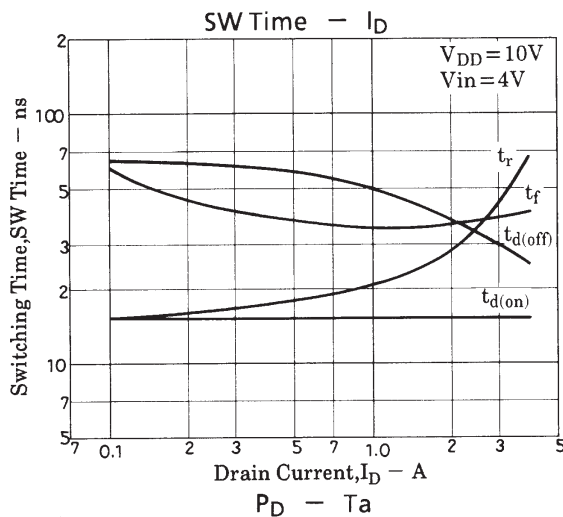
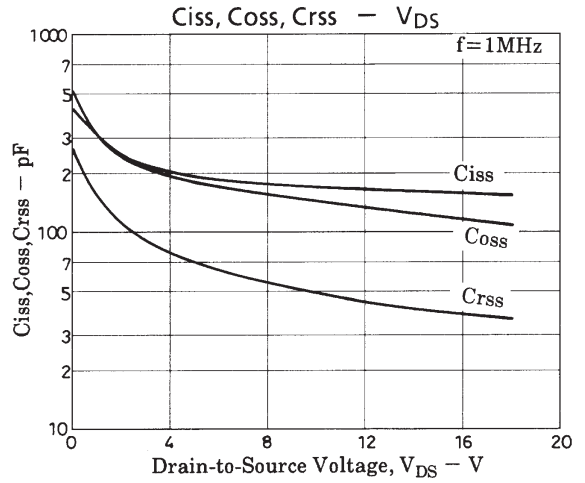
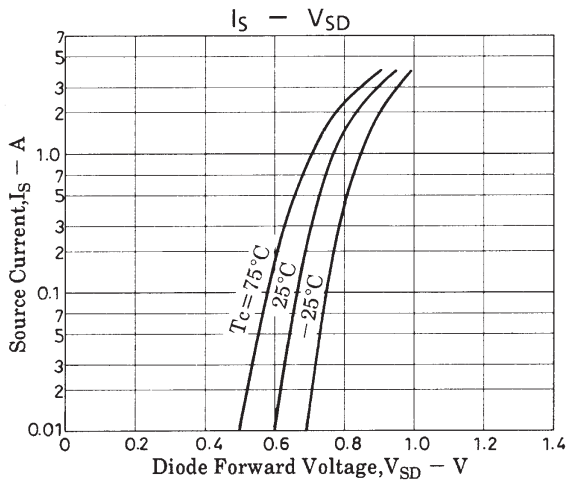
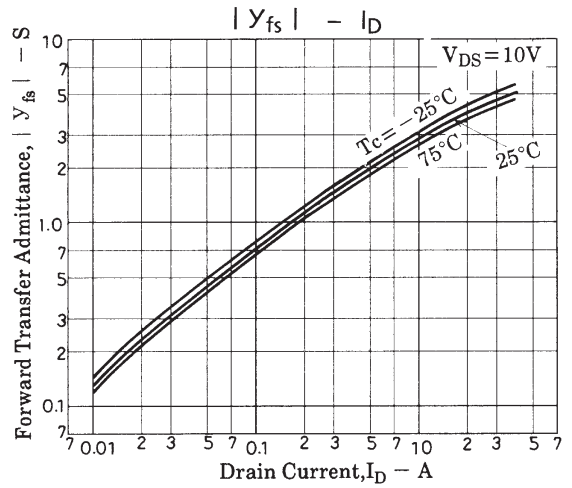
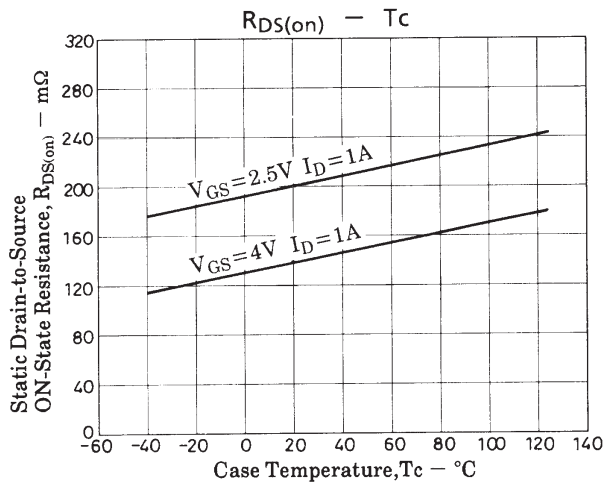
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		15		ns
Rise Time	t_r	"		20		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		50		ns
Fall Time	t_f	"		35		ns
Diode Forward Voltage	V_{SD}	$I_S=2A, V_{GS}=0$		1.0		V

Making : KP

Switching Time Test Circuit



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