

SANYO	No.4568A	2SK2151
		N-Channel MOS Silicon FET Very High-Speed Switching Applications

Features

- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.

Absolute Maximum Ratings at Ta = 25°C

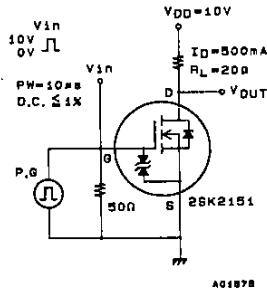
Drain-to-Source Voltage	V _{DSS}	20	V	unit
Gate-to-Source Voltage	V _{GSS}	±15	V	
Drain Current(DC)	I _D	1	A	
Drain Current(Pulse)	I _{DP}	PW ≤ 10μs, duty cycle ≤ 1%		4
Allowable Power Dissipation	P _D	Tc = 25°C		3.5
		Mounted on ceramic board (250mm ² × 0.8mm)		1.3
Channel Temperature	T _{ch}	150	°C	
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	20			V
G-S Breakdown Voltage	V _{(BR)GSS}	I _G = ±100μA, V _{DS} = 0	±15			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} = 20V, V _{GS} = 0			100	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} = ±12V, V _{DS} = 0			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{DS} = 10V, I _D = 1mA	1.0		2.0	V
Forward Transfer Admittance	Y _{fs}	V _{DS} = 10V, I _D = 500mA	0.6	1		S
Static Drain-to-Source ON-State Resistance	R _{DS(on)}	I _D = 500mA, V _{GS} = 10V		350	480	mΩ
ON-State Resistance	R _{DS(on)}	I _D = 500mA, V _{GS} = 4V		550	750	mΩ
Input Capacitance	C _{iss}	V _{DS} = 10V, f = 1MHz		50		pF
Output Capacitance	C _{oss}	V _{DS} = 10V, f = 1MHz		45		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} = 10V, f = 1MHz		15		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit.		8		ns
Rise Time	t _r	"		10		ns
Turn-OFF Delay Time	t _{d(off)}	"		30		ns
Fall Time	t _f	"		20		ns
Diode Forward Voltage	V _{SD}	I _S = 1A, V _{GS} = 0		1.0		V

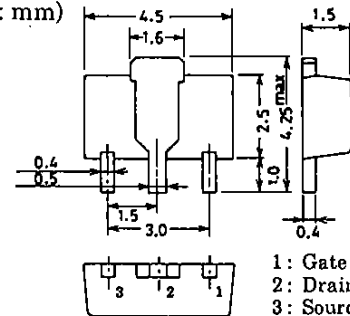
Marking : KI

Switching Time Test Circuit



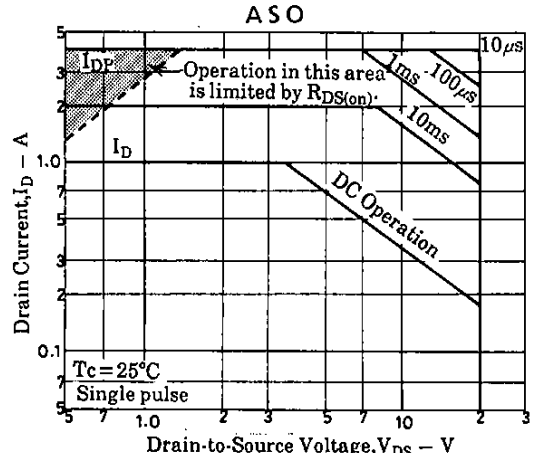
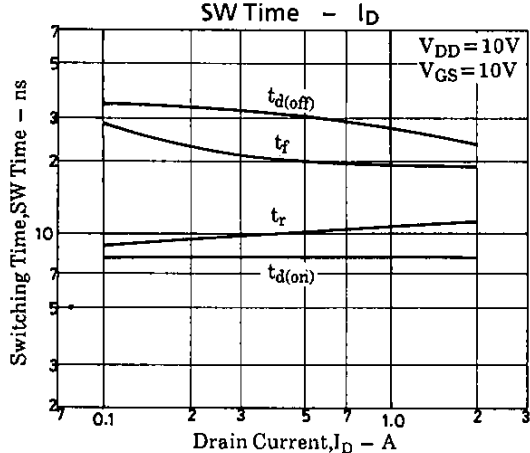
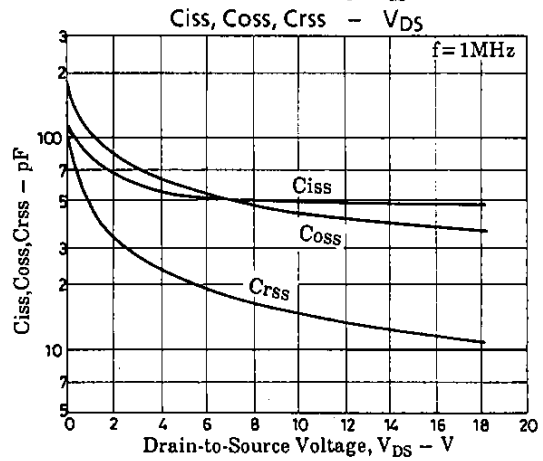
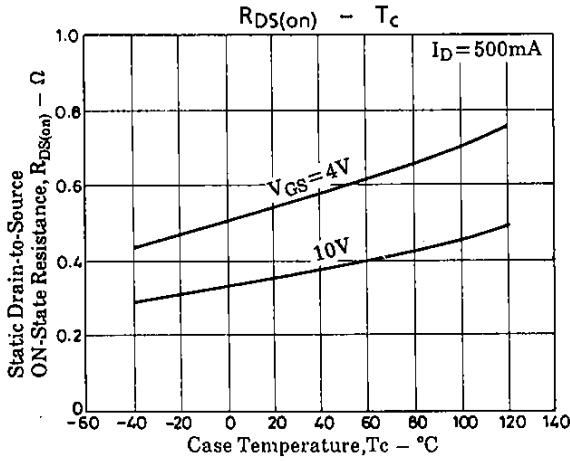
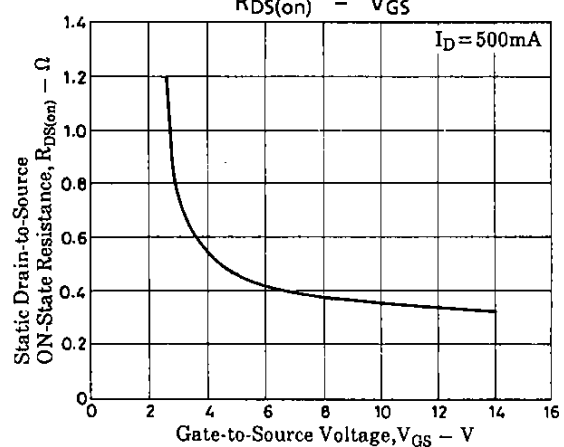
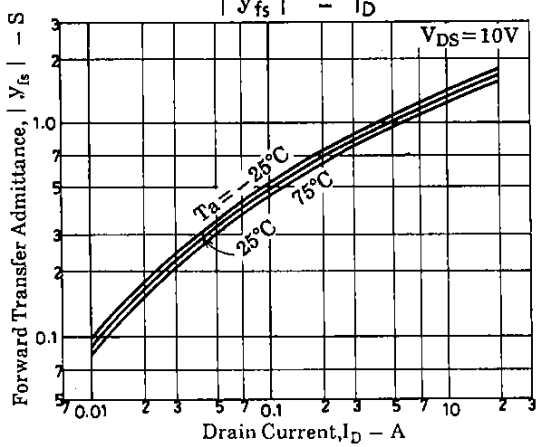
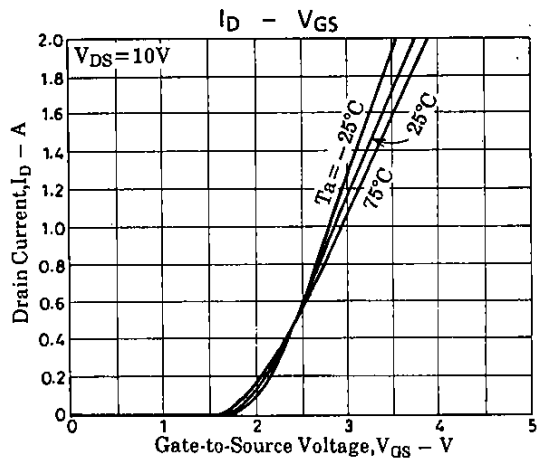
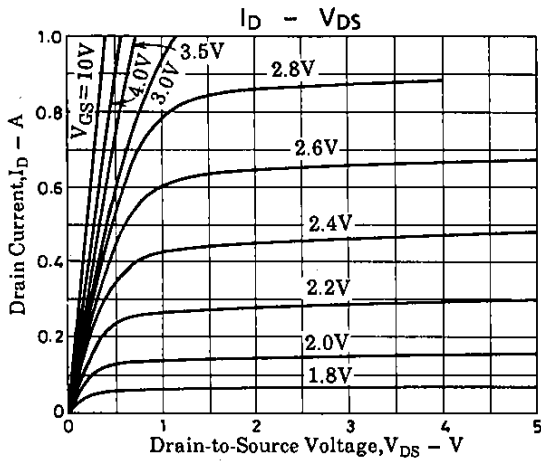
Package Dimensions 2062A

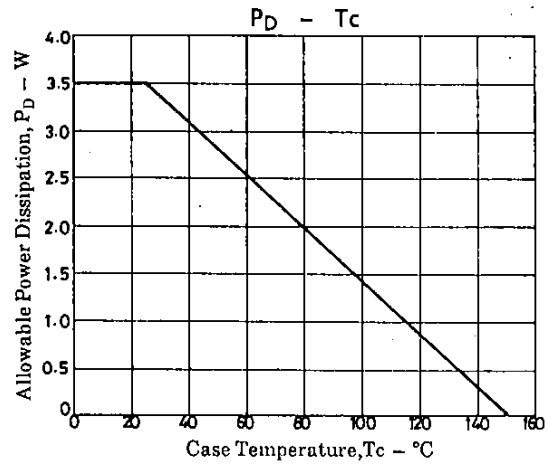
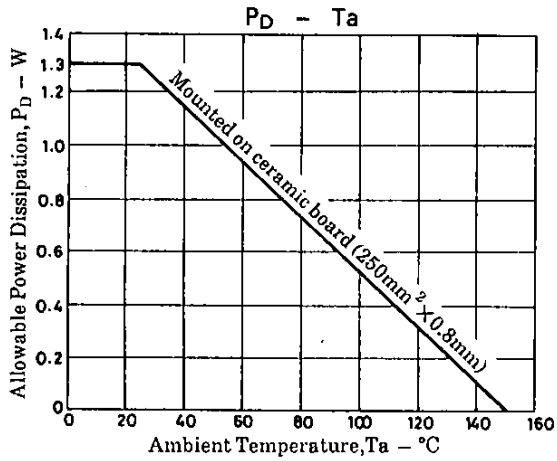
(unit : mm)



1: Gate
2: Drain
3: Source
SANYO: PCP
(Bottom View)

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