

SANYO

No.4568A

2SK2151N-Channel MOS Silicon FET
Very High-Speed
Switching Applications**Features**

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

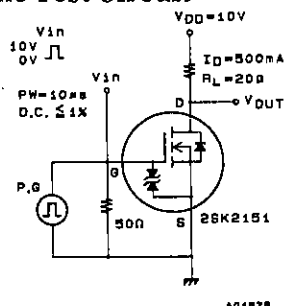
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

			unit
Drain-to-Source Voltage	V_{DS}	20	V
Gate-to-Source Voltage	V_{GS}	± 15	V
Drain Current(DC)	I_D	1	A
Drain Current(Pulse)	I_{DP}	$PW \leq 10\mu s, \text{duty cycle} \leq 1\%$	A
Allowable Power Dissipation	P_D	$T_c = 25^\circ\text{C}$	3.5 W
		Mounted on ceramic board ($250\text{mm}^2 \times 0.8\text{mm}$)	1.3 W
Channel Temperature	T_{ch}	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1\text{mA}, V_{GS} = 0$	20			V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100\mu A, V_{DS} = 0$	± 15			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 20\text{V}, V_{GS} = 0$			100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 12\text{V}, V_{DS} = 0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10\text{V}, I_D = 1\text{mA}$	1.0		2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10\text{V}, I_D = 500\text{mA}$	0.6	1		S
Static Drain-to-Source ON-State Resistance	$R_{DS(on)}$	$I_D = 500\text{mA}, V_{GS} = 10\text{V}$		350	480	m Ω
	$R_{DS(on)}$	$I_D = 500\text{mA}, V_{GS} = 4\text{V}$		550	750	m Ω
Input Capacitance	C_{iss}	$V_{DS} = 10\text{V}, f = 1\text{MHz}$		50		pF
Output Capacitance	C_{oss}	$V_{DS} = 10\text{V}, f = 1\text{MHz}$		45		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 10\text{V}, f = 1\text{MHz}$		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}	$I_S = 1\text{A}, V_{GS} = 0$		1.0		V

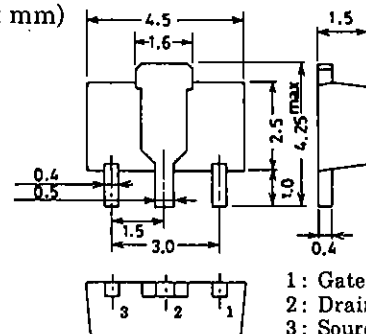
Marking: KI

Switching Time Test Circuit

A01878

Package Dimensions 2062A

(unit: mm)

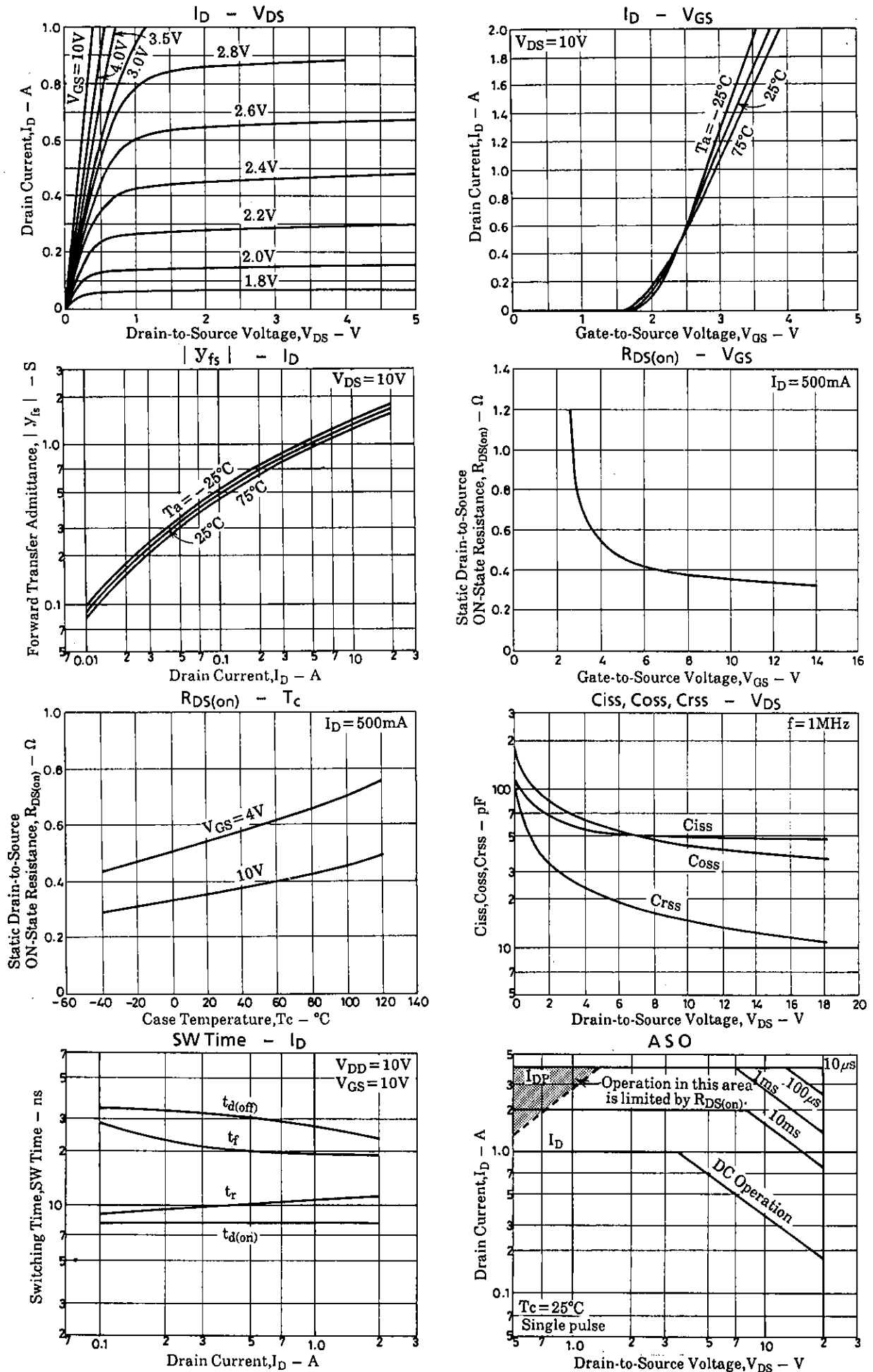


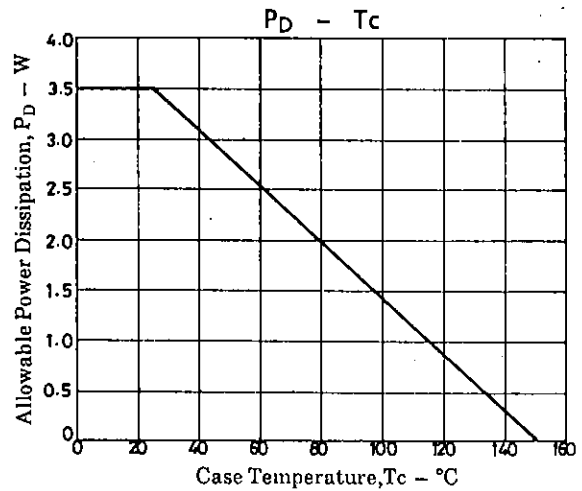
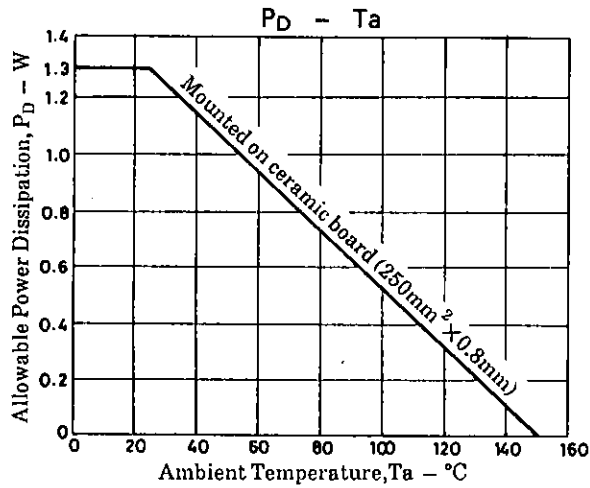
1: Gate
2: Drain
3: Source
SANYO: PCP
(Bottom View)

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