

<b>SANYO</b>	No.3462A	<h1 style="margin: 0;">2SK1459</h1> <p style="margin: 0;">N-Channel Silicon MOSFET</p> <h2 style="margin: 0;">Ultrahigh-Speed Switching Applications</h2>
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**Features**

- Low ON-state resistance.
- Ultrahigh-speed switching.
- Micaless package facilitating mounting.

**Absolute Maximum Ratings at Ta = 25°C**

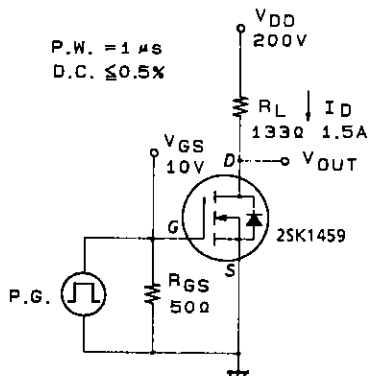
Drain-to-Source Voltage	$V_{DSS}$		900 V
Gate-to-Source Voltage	$V_{GSS}$		±30 V
Drain Current(DC)	$I_D$		2.5 A
Drain Current(Pulse)	$I_{DP}$	PW ≤ 10μs, duty cycle ≤ 1%	5 A
Allowable Power Dissipation	$P_D$		2.0 W
		Tc = 25°C	30 W
Channel Temperature	$T_{ch}$		150 °C
Storage Temperature	$T_{stg}$		-55 to +150 °C

**Electrical Characteristics at Ta = 25°C**

			min	typ	max	
D-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1mA, V_{GS} = 0$	900			V
Zero-Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 900V, V_{GS} = 0$			1.0	mA
Gate-to-Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 30V, V_{DS} = 0$			±100	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V, I_D = 1mA$	2.0		3.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 20V, I_D = 1.5A$	0.8	1.5		S
(Static Drain-to-Source ON-State Resistance	$R_{DS(on)}$	$I_D = 1.5A, V_{GS} = 10V$		4.7	6.0	Ω
Input Capacitance	$C_{iss}$	$V_{DS} = 20V, f = 1MHz$		350		pF
Output Capacitance	$C_{oss}$	$V_{DS} = 20V, f = 1MHz$		150		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = 20V, f = 1MHz$		100		pF
Turn-ON Delay Time	$t_{d(on)}$	$I_D = 1.5A, V_{GS} = 10V$ $V_{DD} = 200V, R_{GS} = 50\Omega$		15		ns
Rise Time	$t_r$		25		ns	
Turn-OFF Delay Time	$t_{d(off)}$		120		ns	
Fall Time	$t_f$		40		ns	
Diode Forward Voltage	$V_{SD}$	$I_S = 2.5A, V_{GS} = 0$			1.8	V

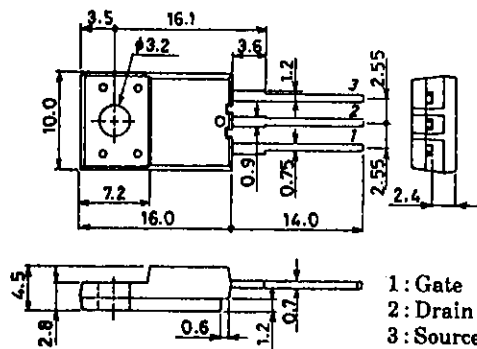
(Note) Be careful in handling the 2SK1459 because it has no protection diode between gate and source.

**Switching Time Test Circuit**



**Package Dimensions 2078B**

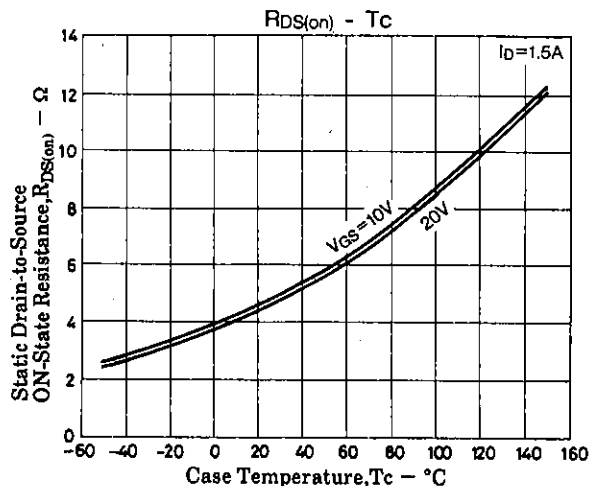
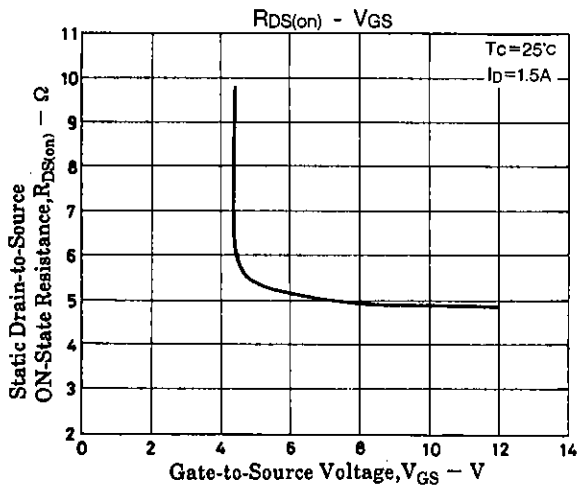
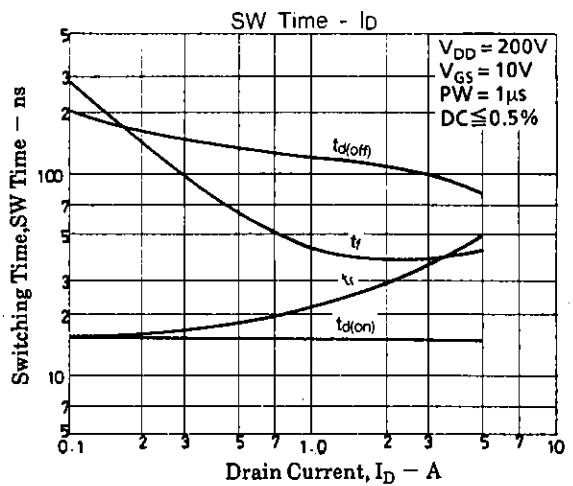
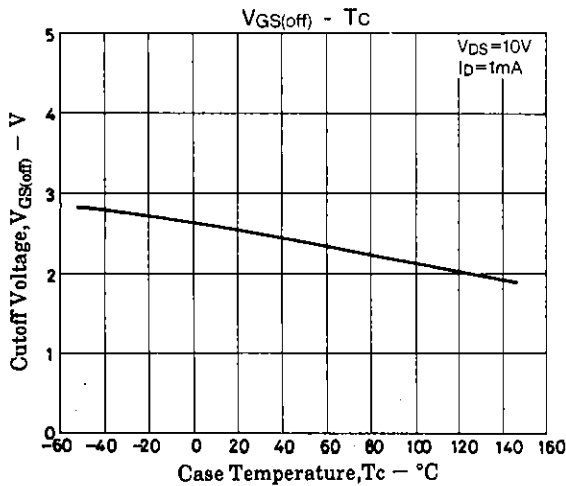
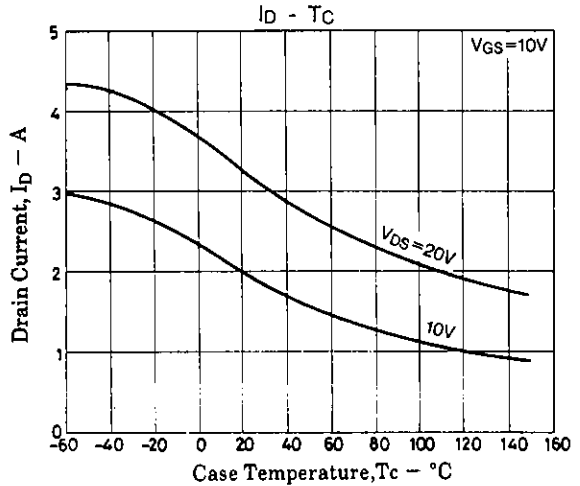
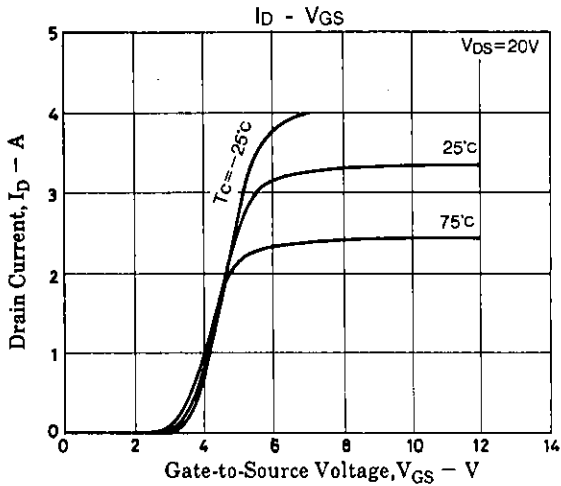
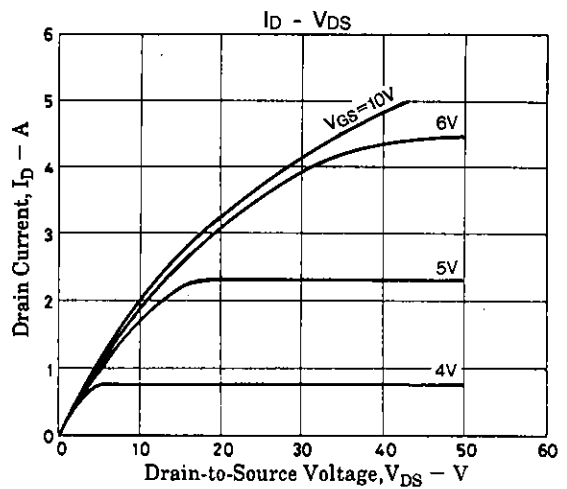
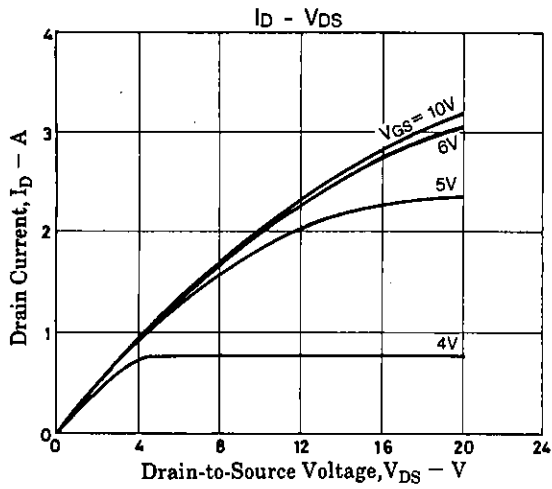
(unit : mm)

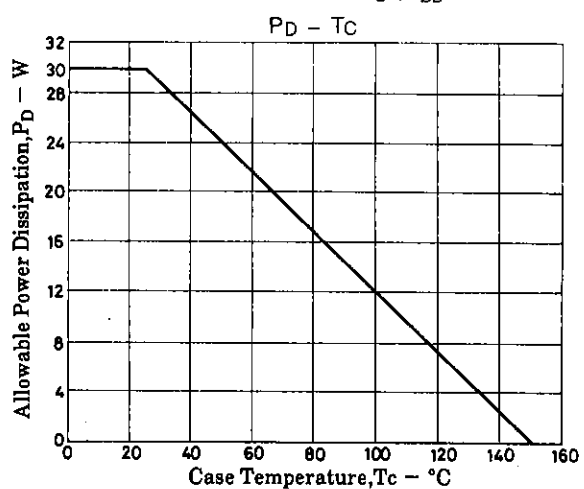
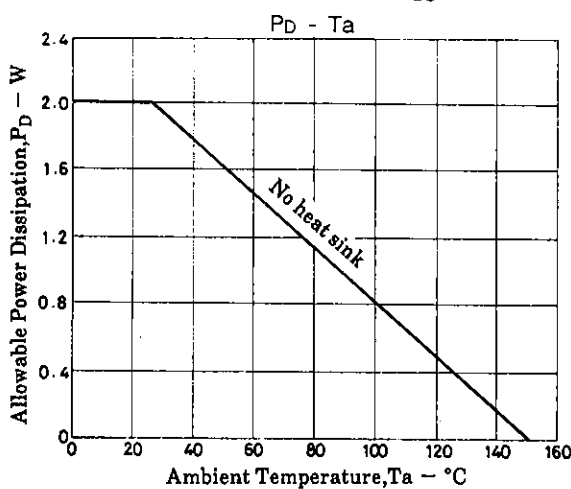
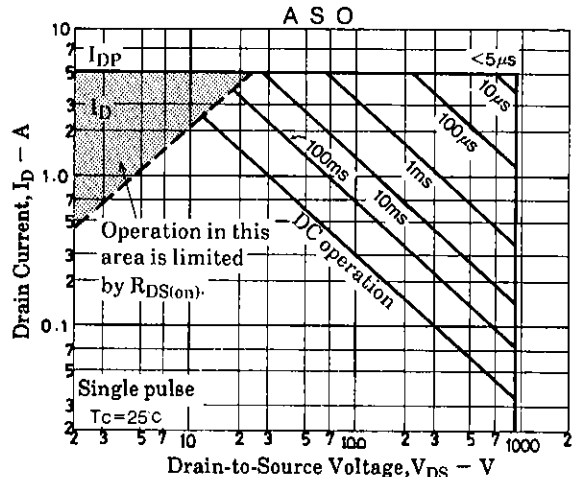
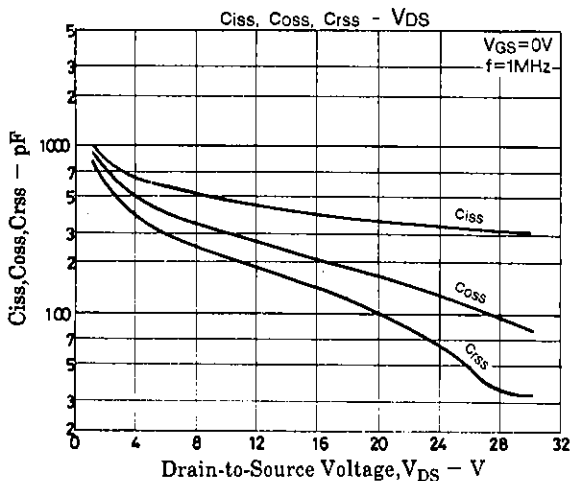
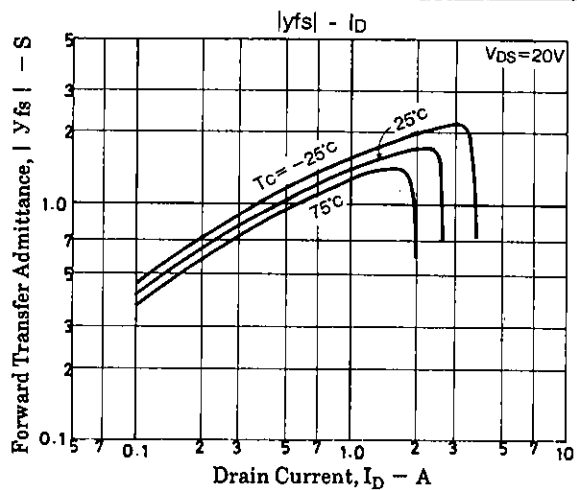
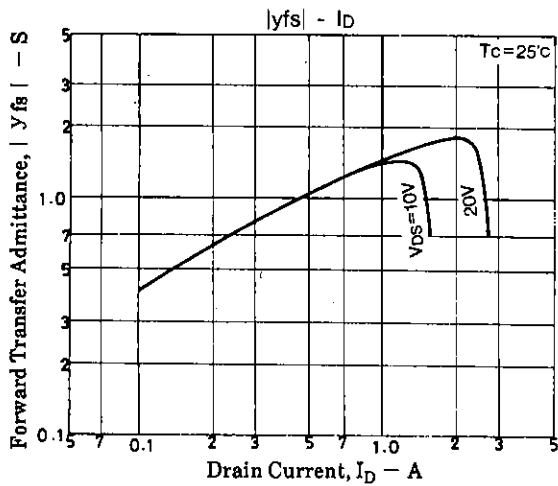


- 1: Gate
- 2: Drain
- 3: Source

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