

# 2SK1311



2062

LD (Low Drive) Series  $V_{DSS}=60V$

## N Channel Power MOSFET

©3153A

### Features

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

### Absolute Maximum Ratings at $T_a=25^\circ C$

			unit
Drain to Source Voltage	$V_{DSS}$	60	V
Gate to Source Voltage	$V_{GSS}$	$\pm 20$	V
Drain Current(DC)	$I_D$	2	A
Drain Current(Pulse)	$I_{DP}$	4	A
Allowable Power Dissipation	$P_D$	3.5	W
		$T_c=25^\circ C$	
		Mounted on ceramic board	
		1.5	W
Channel Temperature	$T_{ch}$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ C$

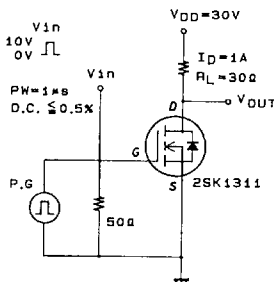
### Electrical Characteristics at $T_a=25^\circ C$

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D=1mA, V_{GS}=0$	60			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=60V, V_{GS}=0$			100	$\mu A$
Gate to Source Leakage Current	$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0$			$\pm 100$	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1mA$	0.8		2.5	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=1A$	1.0	1.7		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D=10A, V_{GS}=10V$	0.35	0.45		$\Omega$
Input Capacitance	$C_{iss}$	$V_{DS}=20V, f=1MHz$		160		pF
Output Capacitance	$C_{oss}$	$V_{DS}=20V, f=1MHz$		60		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS}=20V, f=1MHz$		12		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		6		ns
Rise Time	$t_r$	"		10		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		36		ns
Fall Time	$t_f$	"		20		ns
Diode Forward Voltage	$V_{SD}$	$I_S=2A, V_{GS}=0$	1.0	1.2		V

Marking: KB

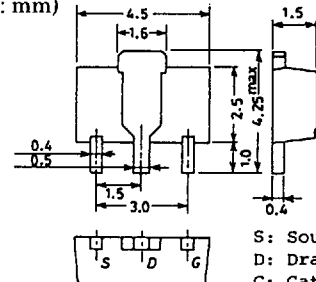
(Note) Be careful in handling the 2SK1311 because it has no protection diode between gate and source.

### Switching Time Test Circuit



### Package Dimensions 2062

(unit: mm)



S: Source  
D: Drain  
G: Gate

SANYO: PCP

