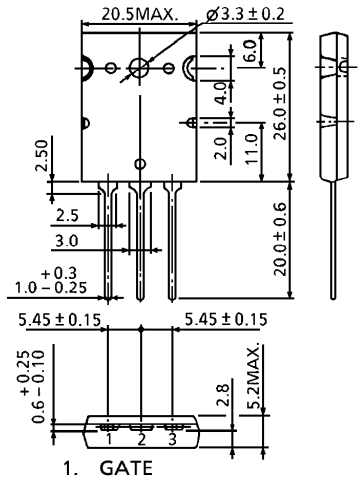
TOSHIBA FIELD EFFECT TRANSISTOR SILICON N CHANNEL MOS TYPE

2SK1530

HIGH POWER AMPLIFIER APPLICATION

- High Breakdown Voltage : V_{DSS} = 200V
- High Forward Transfer Admittance : $|Y_{fs}|$ = 5.0S (Typ.)
- Complementary to 2SJ201

Unit in mm



1. GATE
2. DRAIN (HEAT SINK)
3. SOURCE

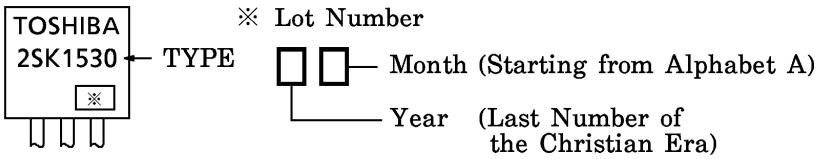
JEDEC	—
EIAJ	—
TOSHIBA	2-21F1B

Weight : 9.75g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V_{DSS}	200	V
Gate-Source Voltage	V_{GSS}	±20	V
Drain Current	I_D	12	A
Drain Power Dissipation (Tc = 25°C)	P_D	150	W
Channel Temperature	T_c	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

MARKING



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Drain Cut-off Current	I_{DSS}	V_{DS} = 200V, V_{GS} = 0	—	—	1.0	mA
Gate Leakage Current	I_{GSS}	V_{DS} = 0V, V_{GS} = ±20V	—	—	±0.5	μA
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	I_D = 10mA, V_{GS} = 0	200	—	—	V
Drain-Source Satruation Voltage	$V_{DS(ON)}$	I_D = 8A, V_{GS} = 10V	—	2.5	5.0	V
Gate-Source Cut-off Voltage (Note)	$V_{GS(OFF)}$	V_{DS} = 10V, I_D = 0.1A	0.8	—	2.8	V
Forward Transfer Admittance	$\|Y_{fs}\|$	V_{DS} = 10V, I_D = 5A	—	5.0	—	S
Input Capacitance	C_{iss}	V_{DS} = 30V, V_{GS} = 0, f = 1MHz	—	900	—	pF
Output Capacitance	C_{oss}	V_{DS} = 30V, V_{GS} = 0, f = 1MHz	—	180	—	pF
Reverse Transfer Capacitance	C_{rss}	V_{DS} = 30V, V_{GS} = 0, f = 1MHz	—	100	—	pF

(Note) $V_{GS(OFF)}$ Classification O : 0.8~1.6 Y : 1.4~2.8

This transistor is an electrostatic sensitive devide.
Please handle with caution.

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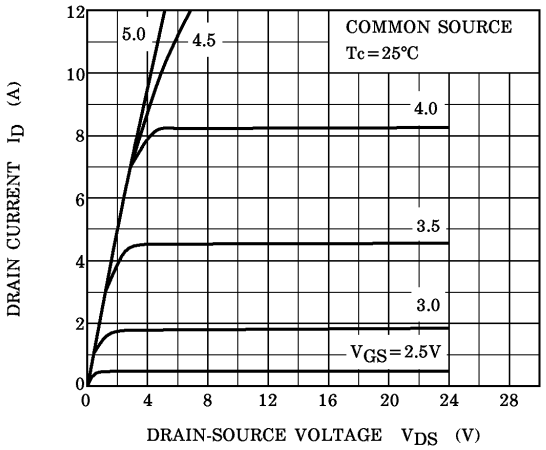
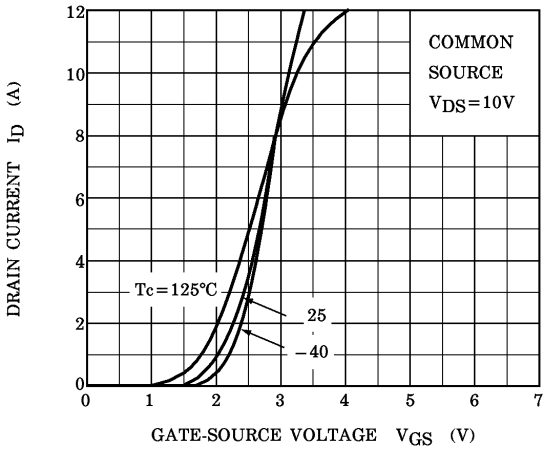
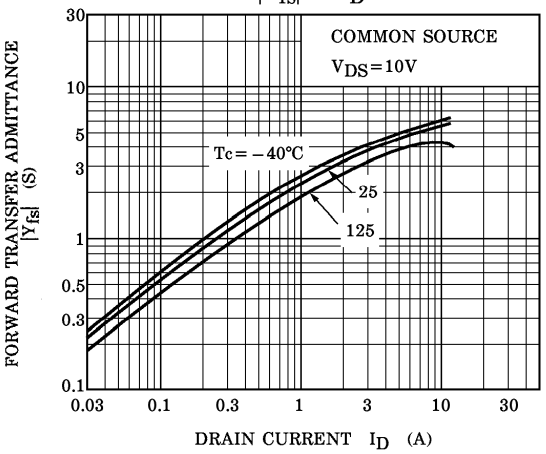
$I_D - V_{DS}$



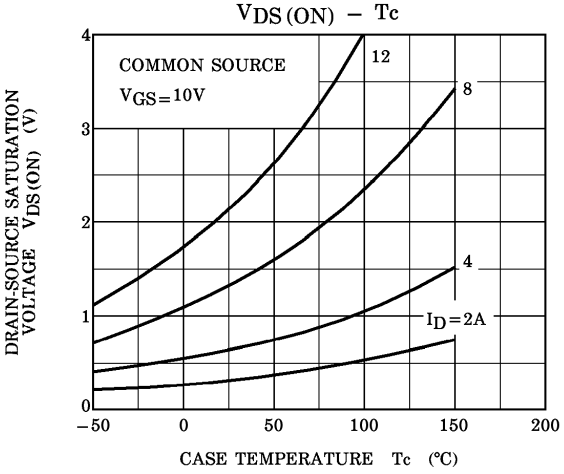
$I_D - V_{GS}$



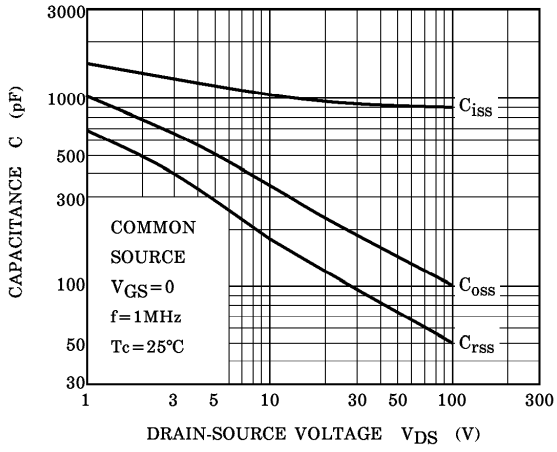
$|Y_{fs}| - I_D$



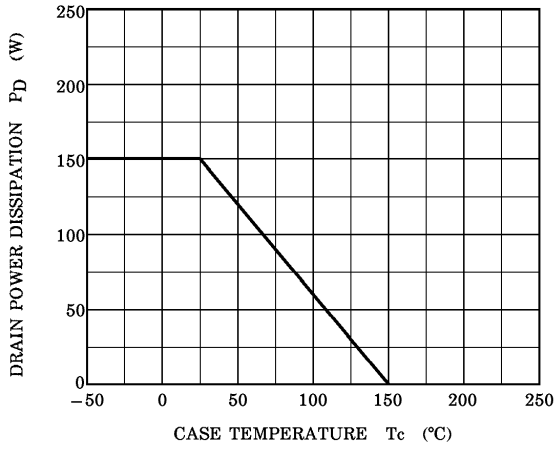
$V_{DS\,(ON)} - Tc$



$C - V_{DS}$



$P_D - Tc$



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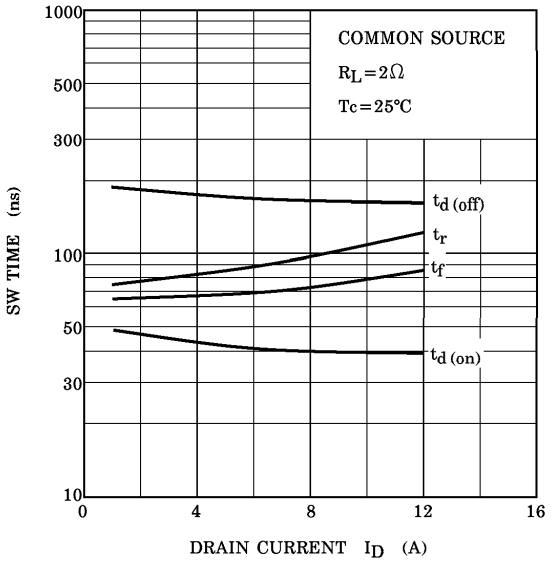
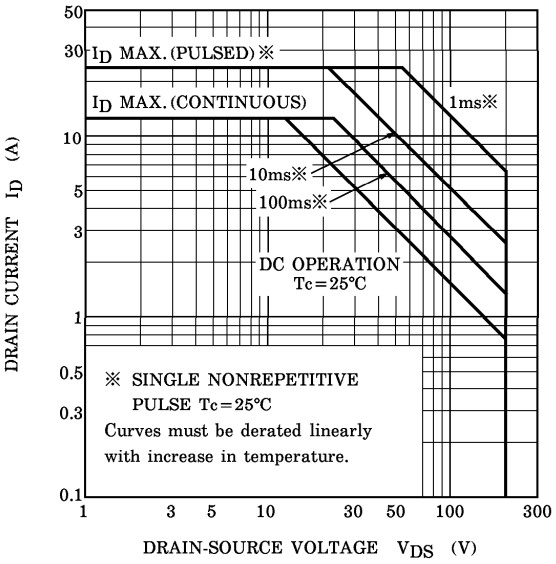
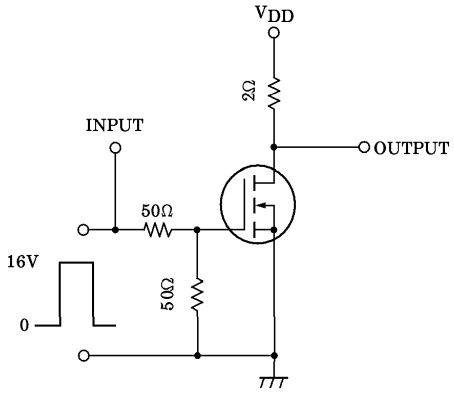
SW TIME – I_D



SAFE OPERATING AREA



SWITCHING TIME TEST CIRCUIT



WAVEFORMS