



SEMICONDUCTOR

TECHNICAL DATA

TOSHIBA FIELD EFFECT TRANSISTOR
 2SK526
 SILICON N CHANNEL MOS TYPE
 (π -MOS)

INDUSTRIAL APPLICATIONS
 Unit in mm

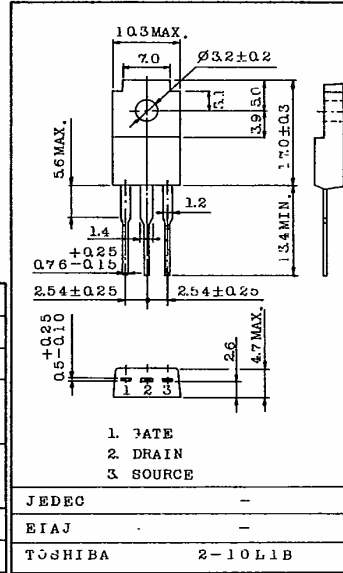
HIGH SPEED, HIGH VOLTAGE SWITCHING APPLICATIONS.
 DC-DC CONVERTER, MOTOR AND SOLENOID DRIVE APPLICATIONS.

FEATURES:

- Low Drain-Source ON Resistance : $R_{DS(ON)}=0.4\Omega$ (Typ.)
- High Forward Transfer Admittance: $|Y_{fs}|=4S$ (Typ.)
- High Drain Current : $I_{DP}=15A$ (Max.)
- Low Leakage Current: $I_{GSS}=\pm 100nA$ (Max.) @ $V_{GS}=\pm 20V$
 $I_{DSS}=1mA$ (Max.) @ $V_{DS}=250V$
- Enhancement-Mode : $V_{th}=1.5\sim 3.5V$ @ $I_D=1mA$

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V_{DSX}	250	V
Gate-Source Voltage	V_{GSS}	± 20	V
Drain Current	DC	I_D	10
	Pulse	I_{DP}	15
Drain Power Dissipation	Ta=25°C	P_D	2.0
	Tc=25°C		40
Channel Temperature	T_{ch}	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C



Weight : 2.1g

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Gate Leakage Current	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0$	-	-	± 100	nA	
Drain Cut-off Current	I_{DSS}	$V_{DS}=250V, V_{GS}=0$	-	-	1.0	μA	
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=10mA, V_{GS}=0$	250	-	-	V	
Gate Threshold Voltage	V_{th}	$V_{DS}=10V, I_D=1mA$	1.5	-	3.5	V	
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=5A$	2.0	4.0	-	S	
Drain-Source ON Resistance	$R_{DS(ON)}$	$I_D=5A, V_{GS}=10V$	-	0.4	0.6	Ω	
Drain-Source ON Voltage	$V_{DS(ON)}$	$I_D=10A, V_{GS}=10V$	-	4.5	7	V	
Input Capacitance	C_{iss}	$V_{DS}=10V, V_{GS}=0, f=1MHz$	-	660	900	pF	
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=10V, V_{GS}=0, f=1MHz$	-	80	150	pF	
Output Capacitance	C_{oss}	$V_{DS}=10V, V_{GS}=0, f=1MHz$	-	260	400	pF	
Switching Time	Rise Time	t_r			-	50	100
	Turn-on Time	t_{on}	-	-	70	140	
	Fall Time	t_f	-	-	60	120	
	Turn-off Time	t_{off}	-	-	160	320	

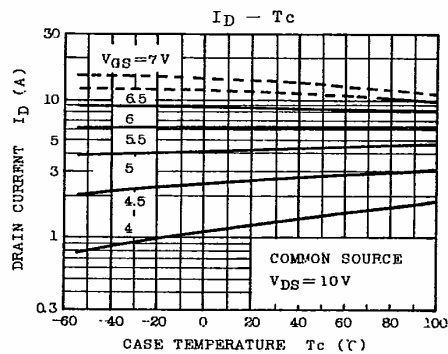
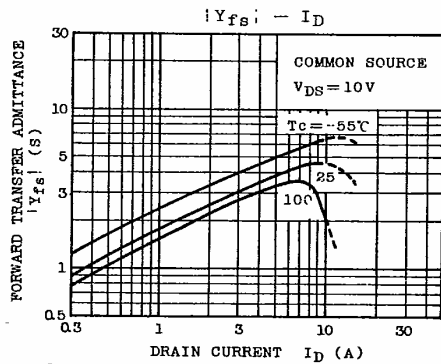
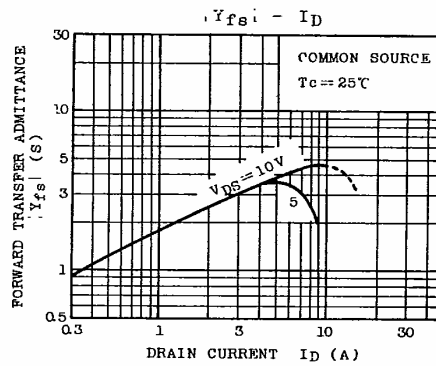
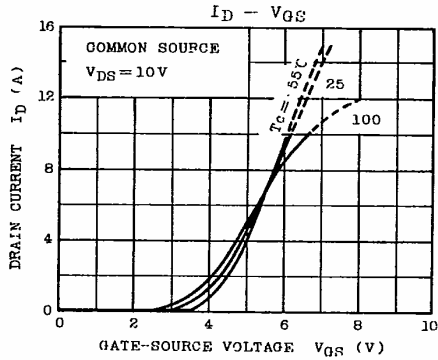
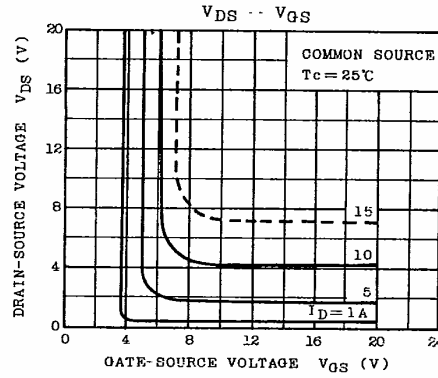
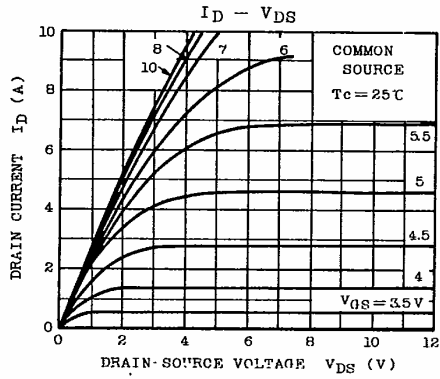
THIS TRANSISTOR IS THE ELECTROSTATIC SENSITIVE DEVICE. PLEASE HANDLE WITH CAUTION.

TOSHIBA CORPORATION



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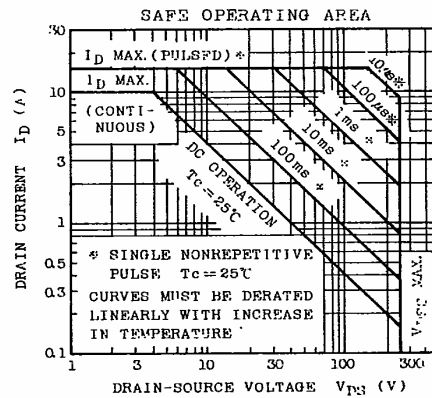
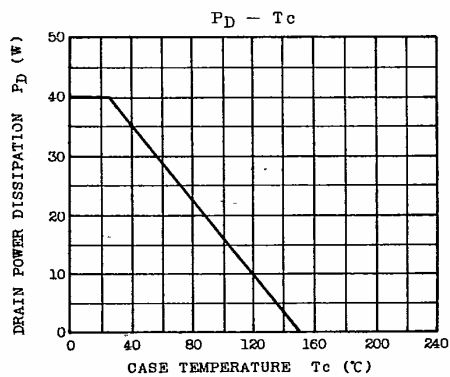
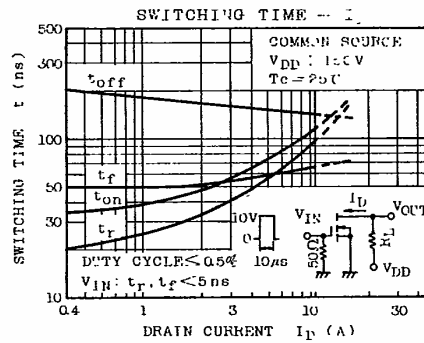
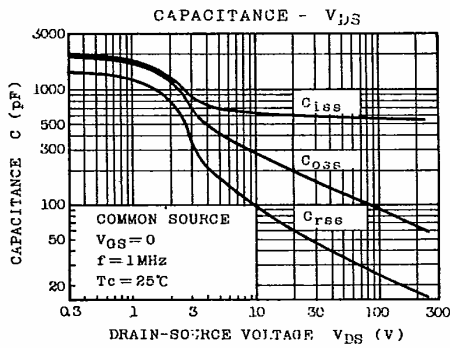
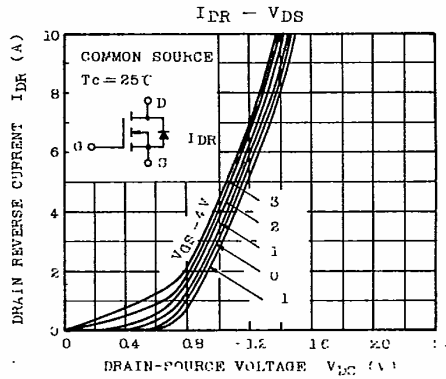
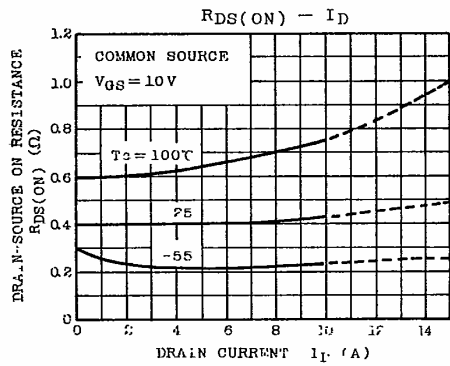
- 59 -



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