

9097250 TOSHIBA (DISCRETE/OPTO)

99D 16689 DT-39-11



**SEMICONDUCTOR**  
TECHNICAL DATA

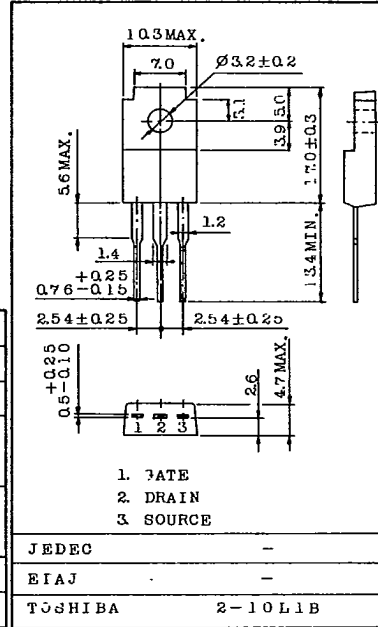
TOSHIBA FIELD EFFECT TRANSISTOR  
2SK526  
SILICON N CHANNEL MOS TYPE  
( $\pi$ -MOS)

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		$V_{GSS}$	$\pm 20$	V
Drain Current	DC	$I_D$	10	A
	Pulse	$I_{DP}$	15	
Drain Power Dissipation	Ta=25°C	$P_D$	2.0	W
	Tc=25°C		40	
Channel Temperature		$T_{ch}$	150	°C
Storage Temperature Range		$T_{stg}$	-55 ~ 150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0$	-	-	$\pm 100$	nA
Drain Cut-off Current		$I_{DSS}$	$V_{DS}=250V, V_{GS}=0$	-	-	1.0	mA
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	$\Omega$
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	ns
	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

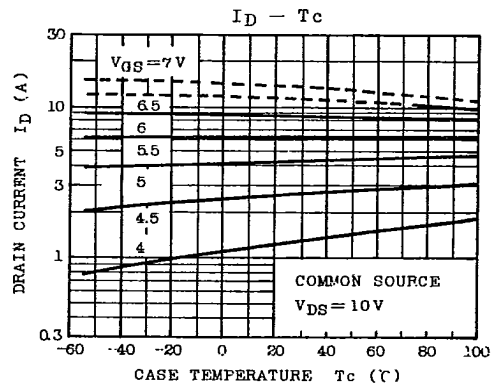
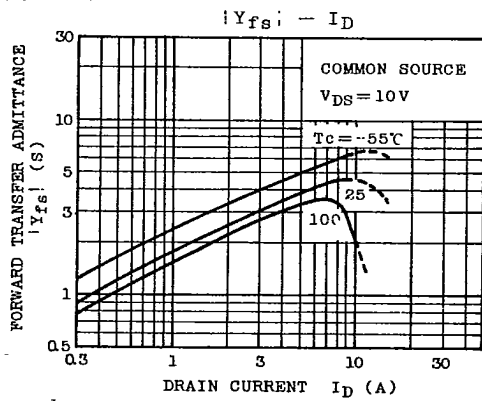
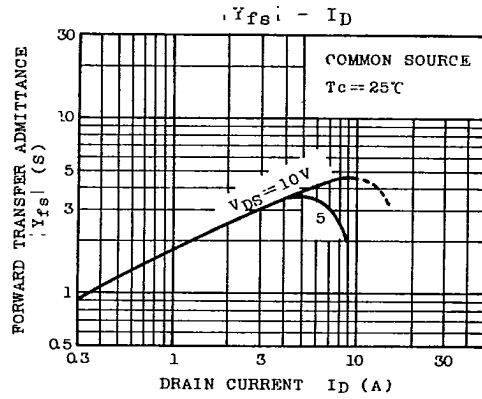
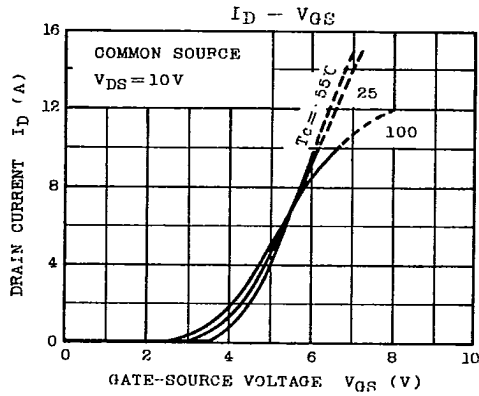
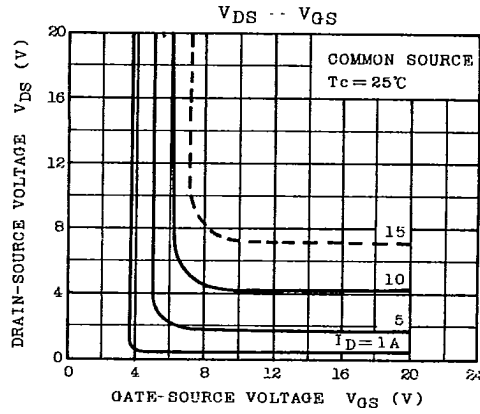
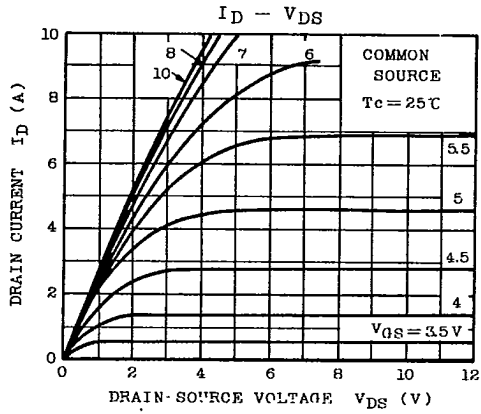
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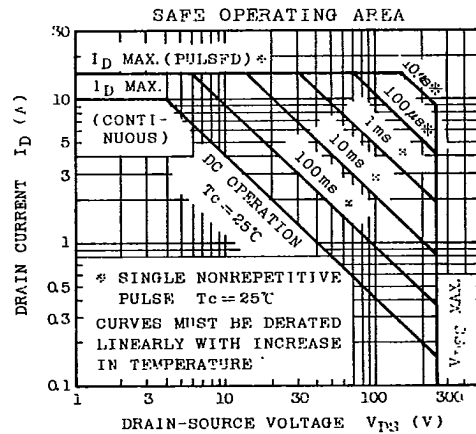
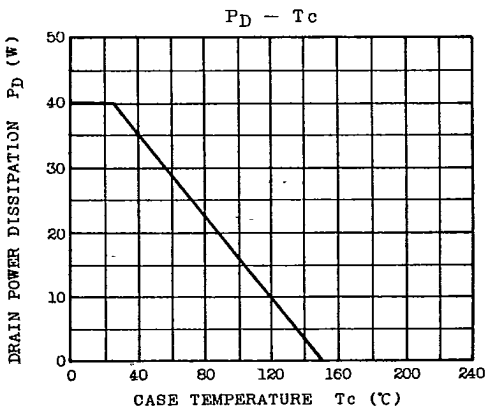
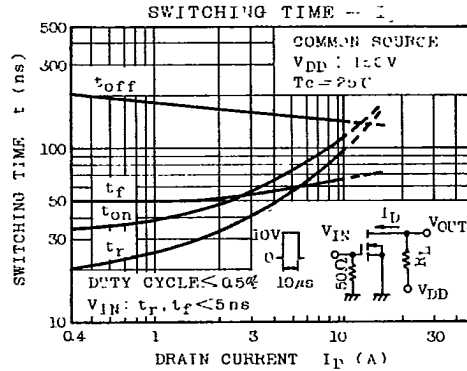
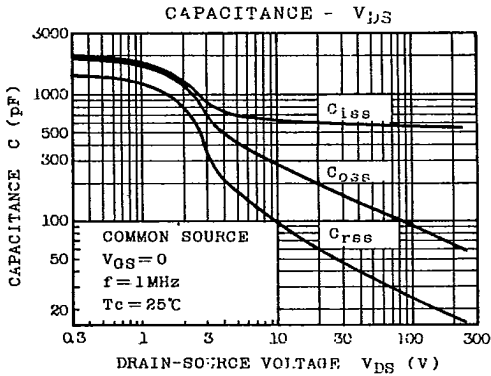
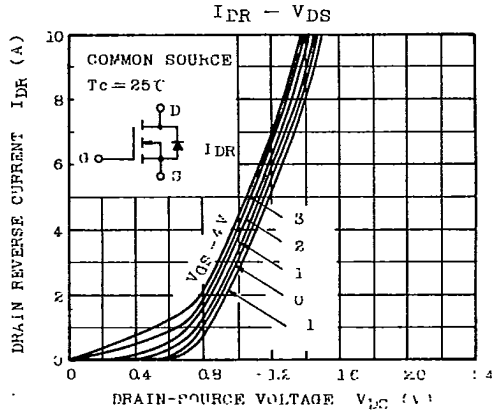
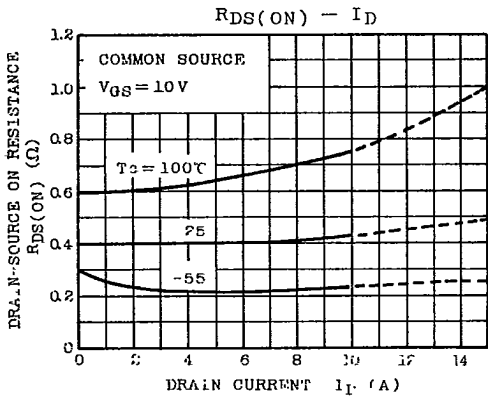
TOSHIBA CORPORATION

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