

TOSHIBA FIELD EFFECT TRANSISTOR SILICON P CHANNEL MOS TYPE

# 2SJ440

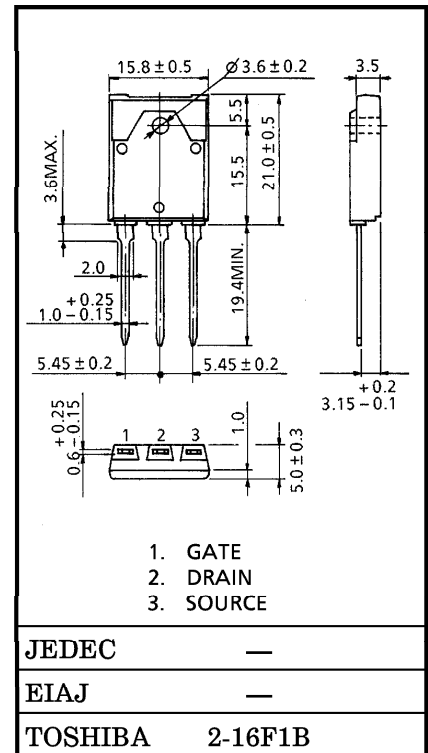
AUDIO FREQUENCY POWER AMPLIFIER APPLICATION

Unit in mm

- High Breakdown Voltage :  $V_{DSS} = -180\text{ V}$
- High Forward Transfer Admittance :  $|Y_{fs}| = 4.0\text{ S (Typ.)}$

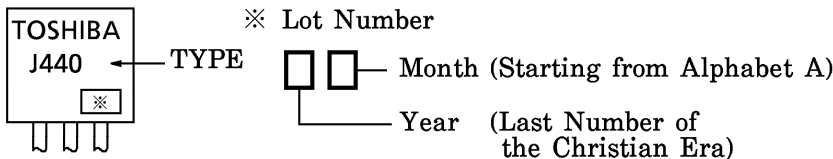
MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	$V_{DSS}$	-180	V
Gate-Source Voltage	$V_{GSS}$	$\pm 20$	V
Drain Current	$I_D$	-9	A
Power Dissipation ( $T_c = 25^\circ\text{C}$ )	$P_D$	80	W
Channel Temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ\text{C}$



Weight : 5.8 g (Typ.)

**MARKING**



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## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	$I_{GSS}$	$V_{DS} = 0, V_{GS} = \pm 20 \text{ V}$	—	—	$\pm 0.5$	$\mu\text{A}$
Drain-Source Breakdown Voltage	$V_{(BR) DSS}$	$I_D = -10 \text{ mA}, V_{GS} = 0$	-180	—	—	V
Gate-Source Cut-off Current	$V_{GS (OFF)}$ (Note)	$V_{DS} = -10 \text{ V}, I_D = -0.1 \text{ A}$	-1.4	—	-2.8	V
Drain-Source Saturation Voltage	$V_{DS (ON)}$	$I_D = -6 \text{ A}, V_{GS} = -10 \text{ V}$	—	-1.5	-5.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = -10 \text{ V}, I_D = -3 \text{ A}$	—	4.0	—	S
Input Capacitance	$C_{iss}$	$V_{DS} = -30 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$	—	1300	—	pF
Output Capacitance	$C_{oss}$	$V_{DS} = -30 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$	—	350	—	pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = -30 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$	—	200	—	pF

(Note) :  $V_{GS (OFF)}$  Classification Y : -1.4~-2.8

**This transistor is the electrostatic sensitive device.  
Please handle with caution.**