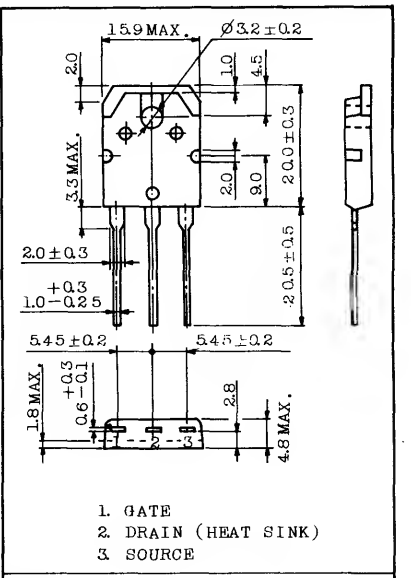
SILICON P CHANNEL MOS TYPE

2SJ115

AUDIO FREQUENCY POWER AMPLIFIER APPLICATION.

Unit in mm



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

JEDEC	—
EIAJ	—
TOSHIBA	2-16C1B

Weight : 4.6g

FEATURES:

- High Breakdown Voltage : V_{DSS}=-160V
- High Forward Transfer Admittance : $|Y_{fs}|$=2.0S (Typ.)
- Complementary to 2SK405

MAXIMUM RATINGS (Ta=25°C)

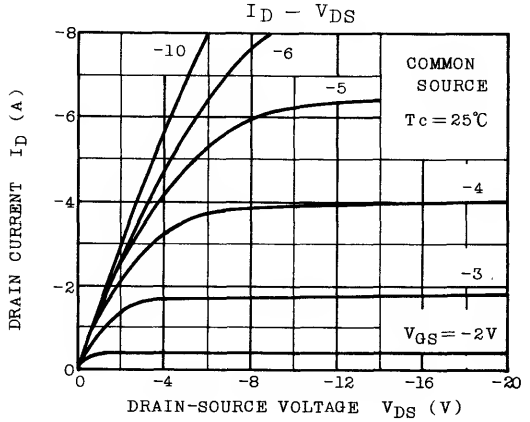
CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V_{DSS}	-160	V
Gate-Source Voltage	V_{GSS}	±20	V
Drain Current	I_D	-8	A
Power Dissipation (Tc=25°C)	P_D	100	W
Channel Temperature	T_{ch}	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

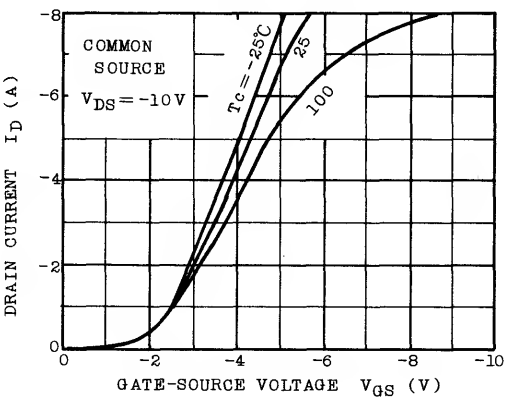
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I_{GSS}	V_{DS}=0, V_{GS}=±20V	-	-	±1.0	μA
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=-5mA, V_{GS}=0	-160	-	-	V
Gate-Source Cut-off Voltage	$V_{GS(OFF)}$ (Note)	V_{DS}=-10V, I_D=-0.1A	-0.8	-	-2.8	V
Drain-Source Saturation Voltage	$V_{DS(ON)}$	I_D=-5A, V_{GS}=-10V	-	-3.5	-7.0	V
Forward Transfer Admittance	$\|Y_{fs}\|$	V_{DS}=-10V, I_D=-2A	1.0	2.0	-	S
Input Capacitance	C_{iss}	V_{DS}=-10V, V_{GS}=0, f=1MHz	-	800	-	pF
Output Capacitance	C_{oss}	V_{DS}=-10V, V_{GS}=0, f=1MHz	-	500	-	pF
Reverse Transfer Capacitance	C_{rs}	V_{DS}=-10V, V_{GS}=0, f=1MHz	-	110	-	pF

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

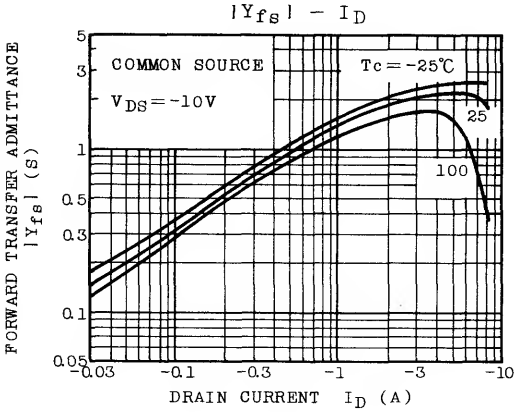
$I_D - V_{DS}$



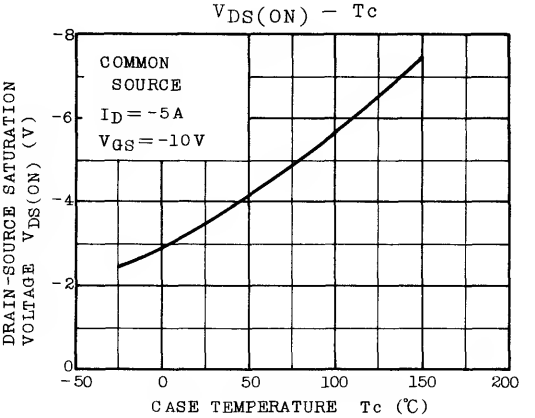
$I_D - V_{GS}$



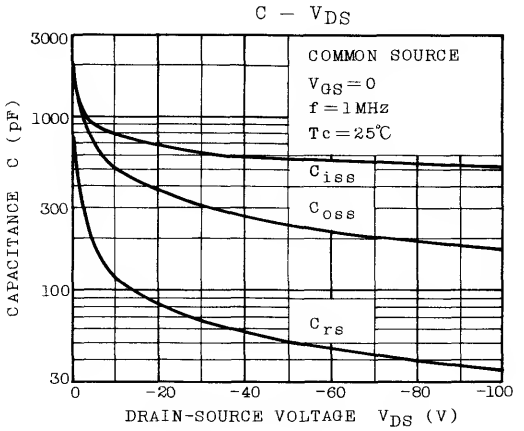
$|Y_{fs}| - I_D$



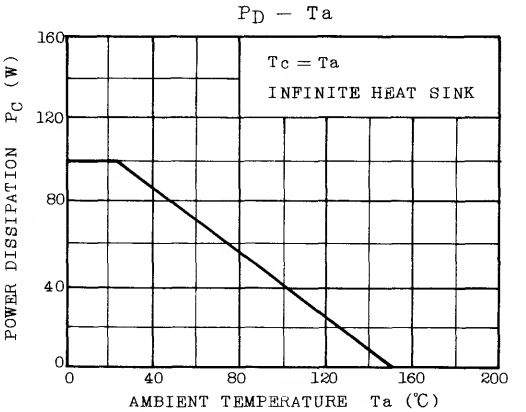
$V_{DS(ON)} - Tc$

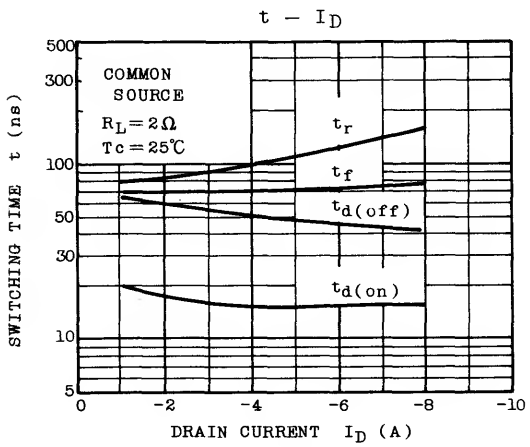


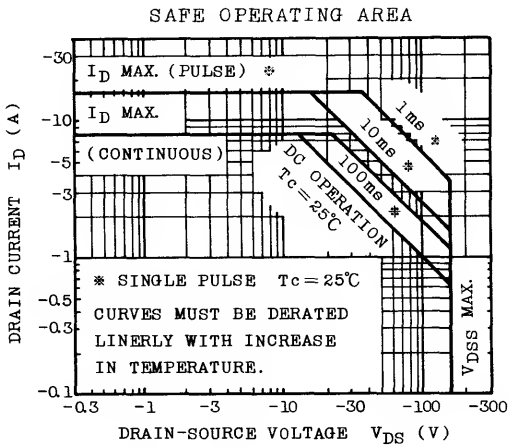
$C - V_{DS}$

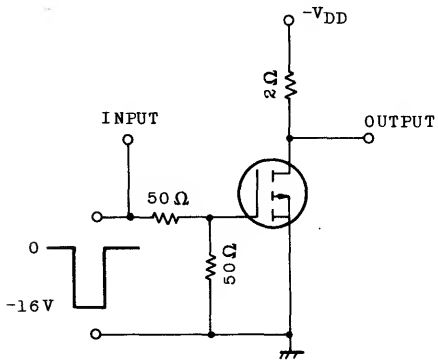


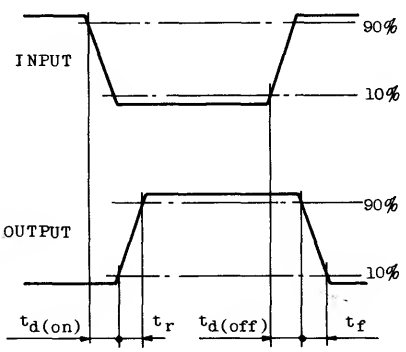
$P_D - Ta$




t – I_D
COMMON SOURCE
$R_L = 2\Omega$
Tc = 25°C
t_r
t_f
$t_{d(off)}$
$t_{d(on)}$
SWITCHING TIME t (ns)
DRAIN CURRENT I_D (A)


SAFE OPERATING AREA
I_D MAX. (PULSE) *
I_D MAX. (CONTINUOUS)
1ms *
10ms *
100ms *
DC OPERATION
Tc = 25°C
* SINGLE PULSE Tc = 25°C
CURVES MUST BE DERATED LINERLY WITH INCREASE IN TEMPERATURE.
V_{DSS} MAX.
DRAIN CURRENT I_D (A)
DRAIN-SOURCE VOLTAGE V_{DS} (V)


$-V_{DD}$
2Ω
INPUT
OUTPUT
50Ω
0
-16V
50Ω


INPUT
90%
10%
OUTPUT
90%
10%
$t_{d(on)}$
t_r
$t_{d(off)}$
t_f