

P-Channel MOSFET Transistor

2SJ122 / J122

60V / 10A

DATASHEET

OEM – Hitachi

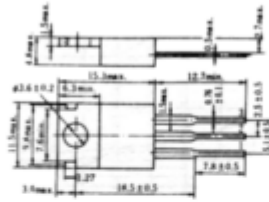
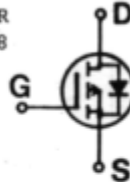
Source: Hitachi Databook Power Mosfet Data 4/83

2SJ122

SILICON P-CHANNEL MOS FET

HIGH SPEED POWER SWITCHING
 HIGH FREQUENCY POWER AMPLIFIER
 Complementary Pair with 2SK428
 Features;

- Low On-Resistance.
- High Speed Switching.
- High Cutoff Frequency.
- No Secondary Breakdown.
- Suitable for Switching Regulator, DC-DC Converter, PWM Amplifiers, and Ultrasonic Power Oscillators.



1. Gate
2. Drain (Fla)
3. Source

Dimensions in mm

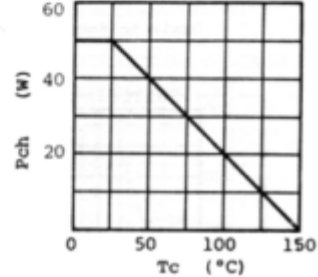
(JEDEC TO-220AB)

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	Rating	Unit
Drain-Source Voltage	V _{DSS}	-60	V
Gate-Source Voltage	V _{GSS}	±20	V
Drain Current	I _D	-10	A
Drain Peak Current	I _{D(peak)}	-15	A
Body-Drain Diode Reverse Drain Current	I _{DR}	-10	A
Channel Dissipation	P _{ch} *	50	W
Channel Temperature	T _{ch}	150	°C
Storage Temperature	T _{stg}	-55 ~ +150	°C

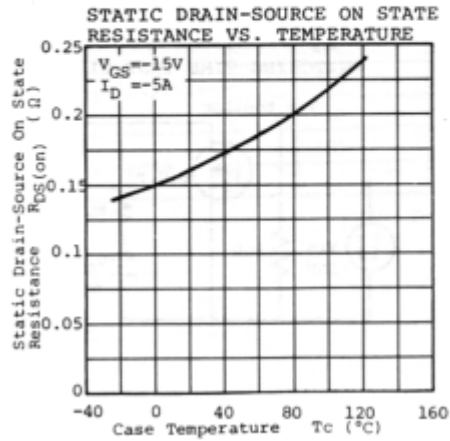
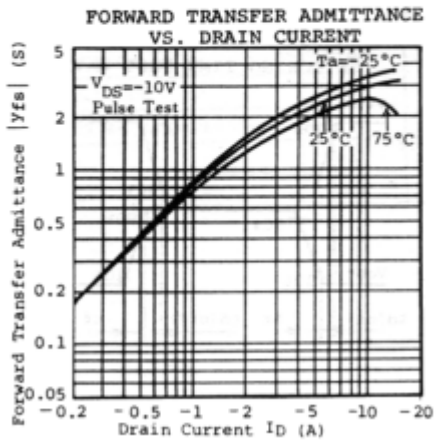
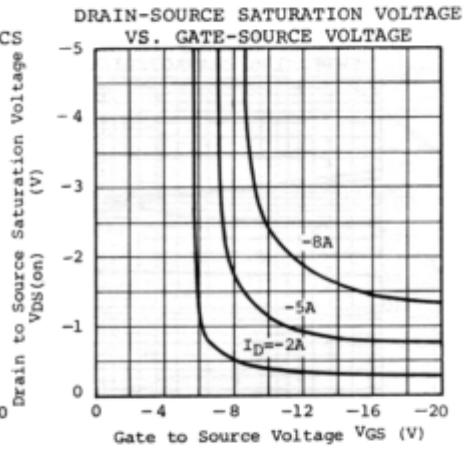
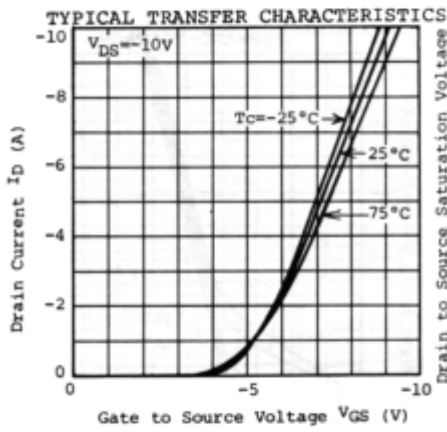
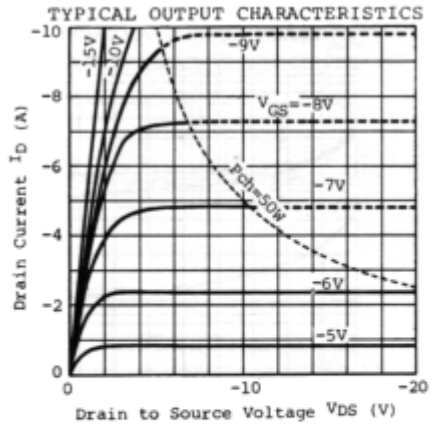
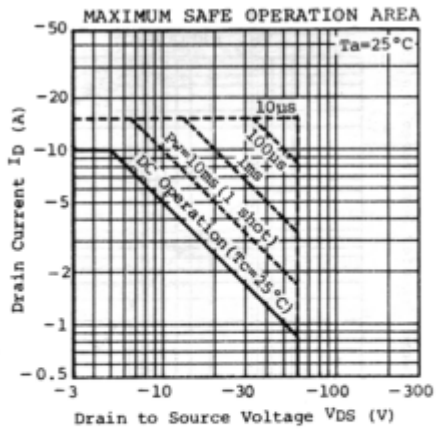
*Value at Tc=25°C

POWER VS. TEMPERATURE DERATING



ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Drain-Source Breakdown Voltage	V _{(BR)DSS}	I _D =-10mA, V _{GS} =0	-60	-	-	V
Gate-Source Leak Current	I _{GSS}	V _{GS} =±20V, V _{DS} =0	-	-	±1	µA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-50V, V _{GS} =0	-	-	-1	mA
Gate-Source Cutoff Voltage	V _{GS(off)}	I _D =-1mA, V _{DS} =-10V	-2.0	-	-5.0	V
Static Drain-Source On State Resistance	R _{DS(on)}	I _D =-5A, V _{GS} =-15V *	-	0.15	0.2	Ω
Drain-Source Saturation Voltage	V _{DS(on)}	I _D =-5A, V _{GS} =-15V *	-	-0.75	-1.0	V
Forward Transfer Admittance	y _{fs}	I _D =-5A, V _{DS} =-10V *	1.5	2.2	-	S
Input Capacitance	C _{iss}	V _{DS} =-10V, V _{GS} =0	-	1200	-	pF
Output Capacitance	C _{oss}	f=1MHz	-	1050	-	pF
Reverse Transfer Capacitance	C _{rss}		-	170	-	pF
Turn-On Delay Time	t _{d(on)}	I _D =-2A, V _{GS} =-15V R _L =15Ω	-	20	-	ns
Rise Time	t _r		-	60	-	ns
Turn-Off Delay Time	t _{d(off)}		-	100	-	ns
Fall Time	t _f		-	100	-	ns
Body-Drain Diode Forward Voltage	V _{DF}	I _F =-5A, V _{GS} =0	-	-0.9	-	V
Body-Drain Diode Reverse Recovery Time	t _{rr}	I _F =-5A, V _{GS} =0	-	350	-	ns



2SJ122

