

P-Channel MOSFET Transistor

2SJ50 / J50

160V / 7A

DATASHEET

OEM – Hitachi

Source: Hitachi Databook Power Mosfet Data 4/83

2SJ48, 2SJ49, 2SJ50

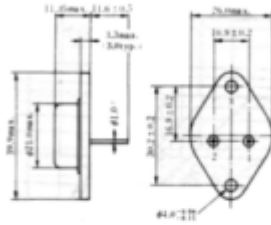
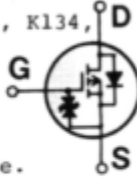
SILICON P-CHANNEL MOS FET

LOW FREQUENCY POWER AMPLIFIER

Complementary Pair with 2SK133, K134, K135

Features:

- High Power Gain.
- Excellent Frequency Response.
- High Speed Switching.
- Wide Area of Safe Operation.
- Enhancement-Mode.
- Good Complementary Characteristics.
- Equipped with Gate Protection Diodes.



(JEDEC TO-3)

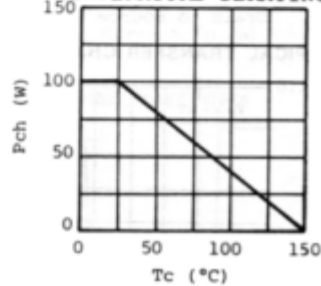
1. Gate
 2. Drain
 3. Source (Case)
- (Dimensions in mm)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	Rating			Unit
		J48	J49	J50	
Drain-Source Voltage	V _{DSX}	-120	-140	-160	V
Gate-Source Voltage	V _{GS}	±14			V
Drain Current	I _D	-7			A
Body-Drain Diode Reverse Drain Current	I _{DR}	-7			A
Channel Dissipation	P _{ch} *	100			W
Channel Temperature	T _{ch}	150			°C
Storage Temperature	T _{stg}	-55~+150			°C

*Value at Tc=25°C

POWER VS. TEMPERATURE DERATING

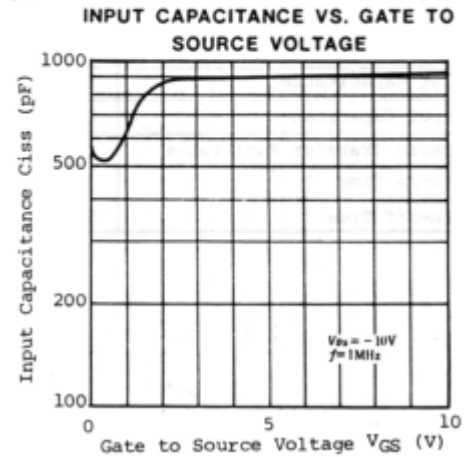
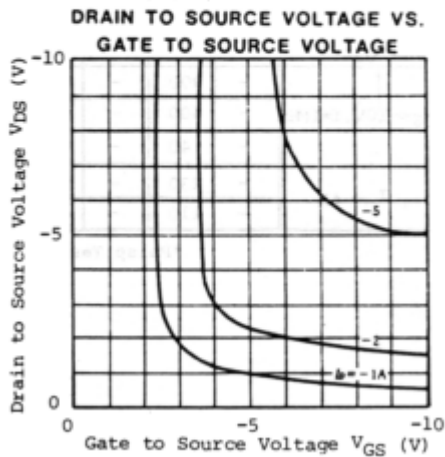
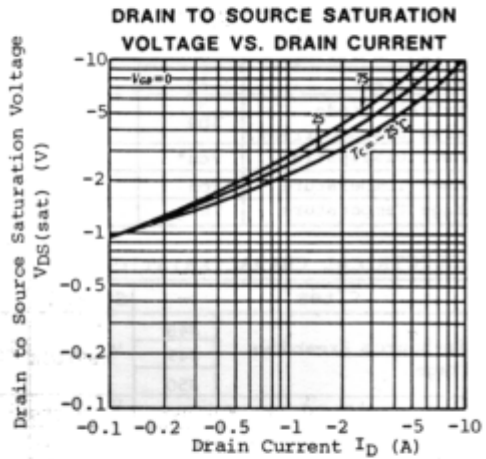
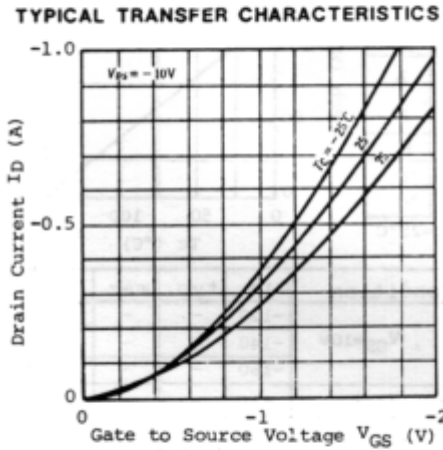
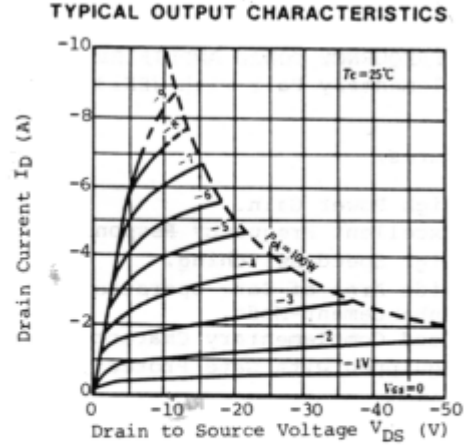
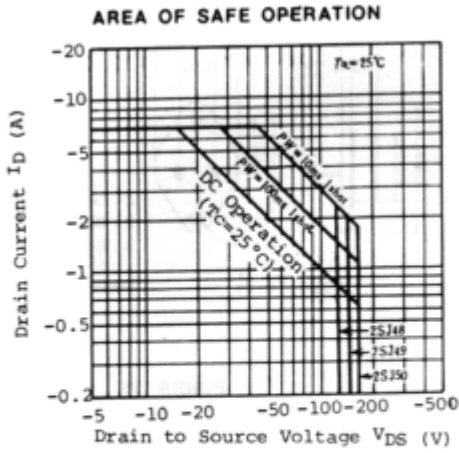


■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Drain-Source Breakdown Voltage	J48	I _D =-10mA, V _{GS} =10V	-120	-	-	V
	J49		-140	-	-	V
	J50		-160	-	-	V
Gate-Source Breakdown Voltage	V _{(BR)GSS}	I _G =±100µA, V _{DS} =0	±14	-	-	V
Gate-Source Cutoff Voltage	V _{GS(off)}	I _D =-100mA, V _{DS} =-10V	-0.15	-	-1.45	V
Drain-Source Saturation Voltage	V _{DS(sat)}	I _D =-7A, V _{GD} =0*	-	-	-12	V
Forward Transfer Admittance	Y _{fs}	I _D =-3A, V _{DS} =-10V*	0.7	1.0	1.4	S
Input Capacitance	C _{iss}	V _{GS} =5V, V _{DS} =-10V, f=1MHz	-	900	-	pF
Output Capacitance	C _{oss}		-	400	-	pF
Reverse Transfer Admittance	C _{rss}		-	40	-	pF
Turn-on Time	t _{on}	V _{DD} =-20V, I _D =-4A	-	230	-	ns
Turn-off Time	t _{off}		-	110	-	ns

*Pulse Test

2SJ48,2SJ49,2SJ50



2SJ48,2SJ49,2SJ50

