

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Hitachi J49* at our website: ***Click HERE***

P-Channel MOSFET Transistor

2SJ49 / J49

140V / 7A

DATASHEET

OEM – Hitachi

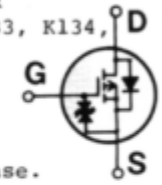
Source: Hitachi Databook Power Mosfet Data 4/83

Datasheet Rev. 2.0 – 09/19 – data without warranty / liability

2SJ48, 2SJ49, 2SJ50

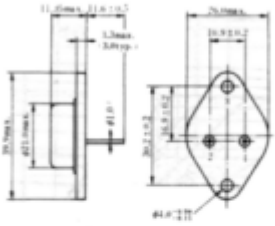
SILICON P-CHANNEL MOS FET

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.



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

(JEDEC TO-3)

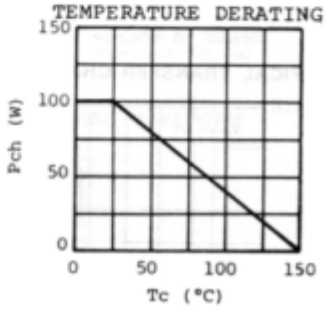
(Dimensions in mm)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	Rating J48	Rating J49	Rating J50	Unit
Drain-Source Voltage	V_{DSX}	-120	-140	-160	V
Gate-Source Voltage	V_{GSS}	±14			V
Drain Current	I_D	-7			A
Body-Drain Diode Reverse Drain Current	I_{DR}	-7			A
Channel Dissipation	Pch*	100			W
Channel Temperature	Tch	150			°C
Storage Temperature	Tstg	-55 ~ +150			°C

*Value at Tc=25°C

POWER VS. TEMPERATURE DERATING

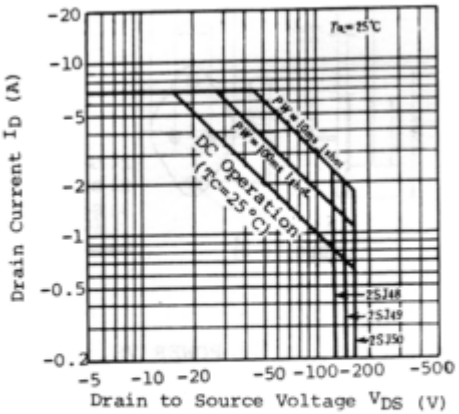


■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

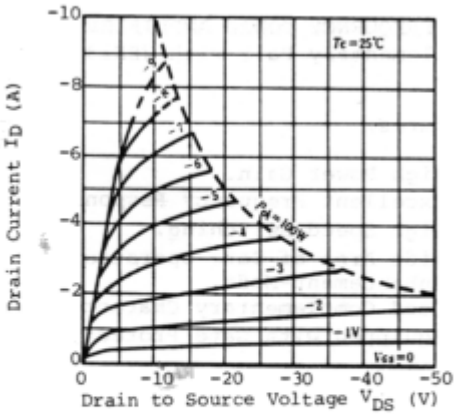
Item		Symbol	Test Condition	min.	typ.	max.	Unit
Drain-Source Breakdown Voltage	J48	$V_{(BR)DSX}$	I_D=-10mA , V_{GS}=10V	-120	-	-	V
	J49			-140	-	-	V
	J50			-160	-	-	V
Gate-Source Breakdown Voltage		$V_{(BR)GSS}$	I_G=±100μA , V_{DS}=0	±14	-	-	V
Gate-Source Cutoff Voltage		$V_{GS(off)}$	I_D=-100mA , V_{DS}=-10V	-0.15	-	-1.45	V
Drain-Source Saturation Voltage		$V_{DS(sat)}$	I_D=-7A , V_{GD}=0 *	-	-	-12	V
Forward Transfer Admittance		$\|Yfs\|$	I_D=-3A , V_{DS}=-10V*	0.7	1.0	1.4	S
Input Capacitance		Ciss	V_{GS}=5V, V_{DS}=-10V, f=1MHz	-	900	-	pF
Output Capacitance		Coss		-	400	-	pF
Reverse Transfer Admittance		Crss		-	40	-	pF
Turn-on Time		t_{on}	V_{DD}=-20V , I_D=-4A	-	230	-	ns
Turn-off Time		t_{off}		-	110	-	ns

*Pulse Test

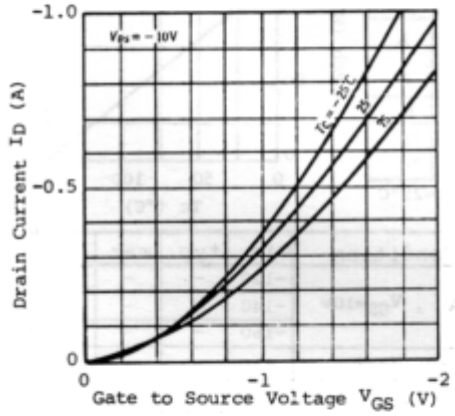
AREA OF SAFE OPERATION



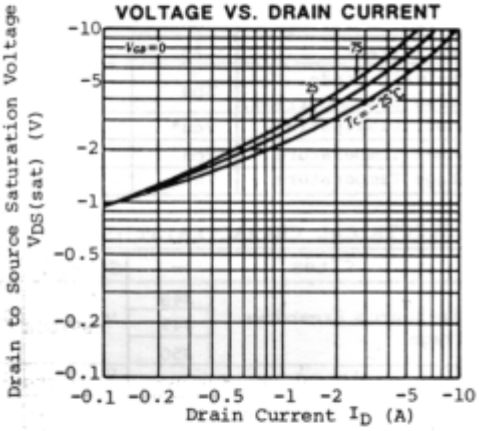
TYPICAL OUTPUT CHARACTERISTICS



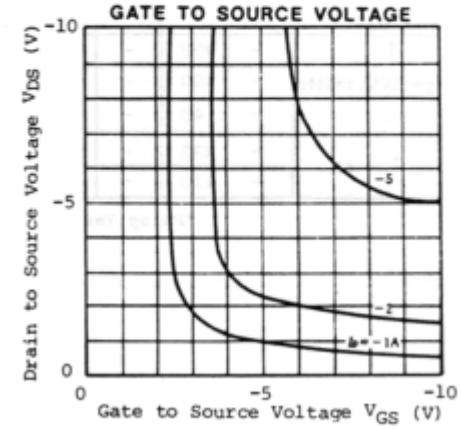
TYPICAL TRANSFER CHARACTERISTICS



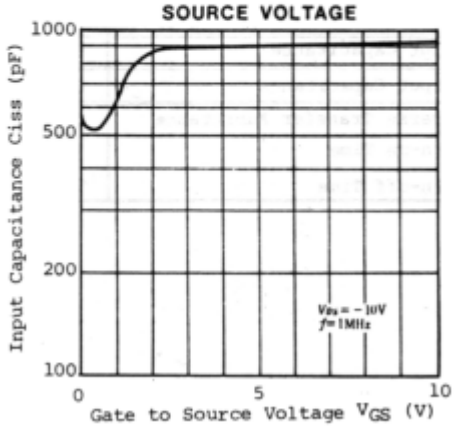
DRAIN TO SOURCE SATURATION VOLTAGE VS. DRAIN CURRENT



DRAIN TO SOURCE VOLTAGE VS. GATE TO SOURCE VOLTAGE

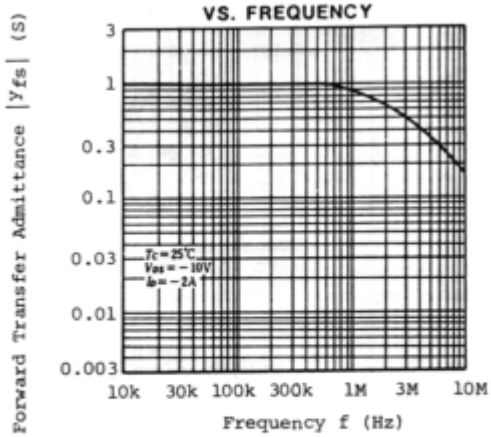


INPUT CAPACITANCE VS. GATE TO SOURCE VOLTAGE

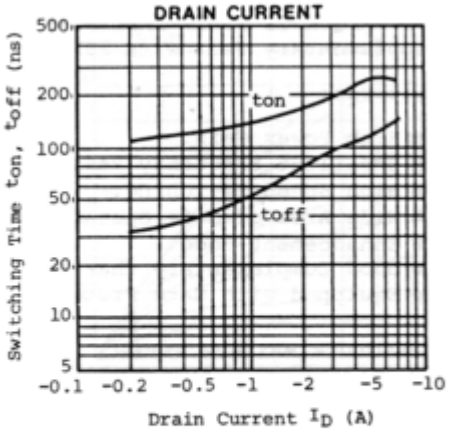


HITACHI

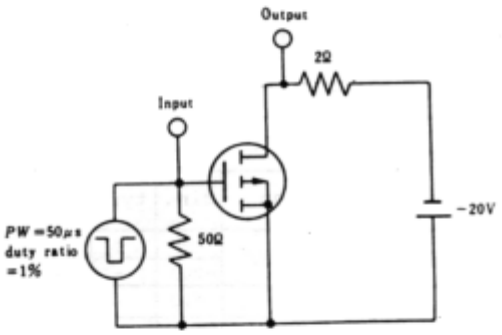
FORWARD TRANSFER ADMITTANCE VS. FREQUENCY



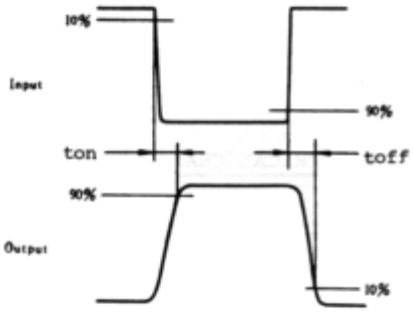
SWITCHING TIME VS. DRAIN CURRENT



SWITCHING TIME TEST CIRCUIT



RESPONSE WAVEFORM



Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP