

N-Channel MOSFET Transistor

2SK176 / K176

200V / 8A

DATASHEET

OEM – Hitachi

Source: Hitachi Databook Power Mosfet Data 4/83

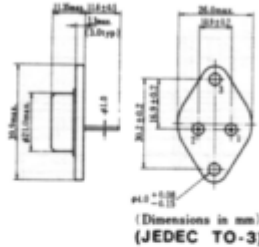
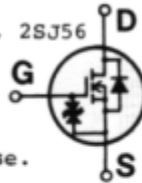
2SK175, 2SK176

SILICON N-CHANNEL MOS FET

LOW FREQUENCY POWER AMPLIFIER
Complementary Pair with 2SJ55, 2SJ56

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.



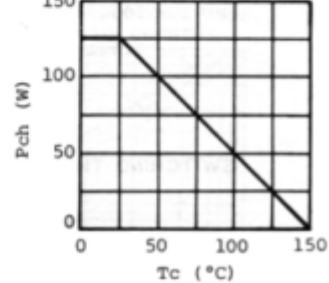
1. Gate
2. Drain
3. Source (Case)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	Rating		Unit
		K175	K176	
Drain-Source Voltage	V _{DSX}	180	200	V
Gate-Source Voltage	V _{GSS}	±20		V
Drain Current	I _D	8		A
Body-Drain Diode Reverse Drain Current	I _{DR}	8		A
Channel Dissipation	P _{ch} *	125		W
Channel Temperature	T _{ch}	150		°C
Storage Temperature	T _{stg}	-55 ~ +150		°C

*Value at Tc=25°C

POWER VS. TEMPERATURE DERATING

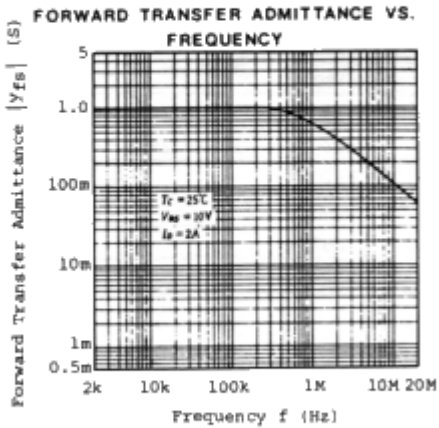
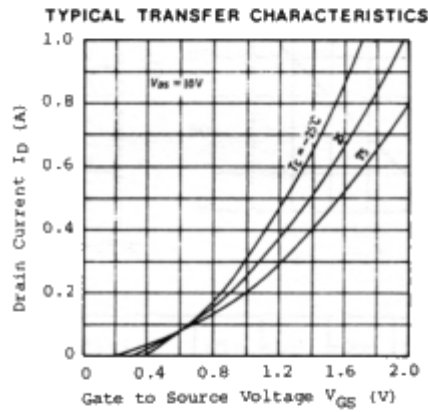
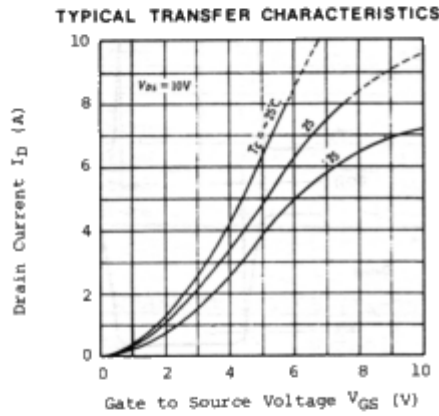
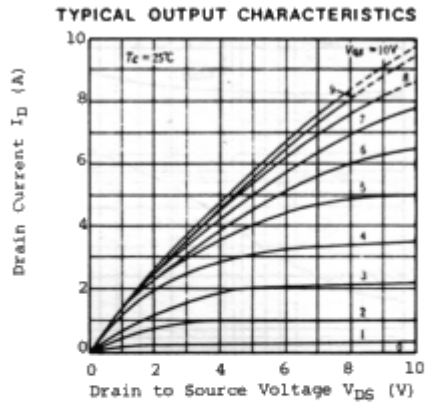
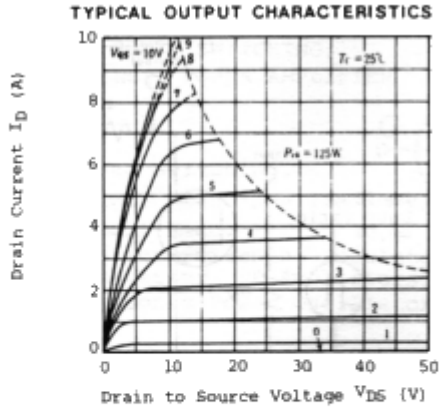


■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Drain-Source Breakdown Voltage	K175	I _D =10mA, V _{GS} =-10V	180	-	-	V
	K176		200	-	-	V
Gate-Source Breakdown Voltage	V _{(BR)GSS}	I _G =±100µA, V _{DS} =0	±20	-	-	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 =8A, 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	-	800	-	pF
Output Capacitance	C _{oss}		-	600	-	pF
Reverse Transfer Capacitance	C _{rss}		-	15	-	pF
Turn-on Time	t _{on}	V _{DD} =30V, I _D =4A	-	250	-	ns
Turn-off Time	t _{off}		-	90	-	ns

*Pulse Test

2SK175,2SK176



2SK175,2SK176

