

# N-Channel MOSFET Transistor

## **2SK214K / K214K**

160V / 0.5A

# DATASHEET

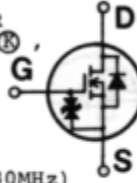
OEM – Hitachi

Source: Hitachi Databook Power Mosfet Data 4/83

# 2SK214K, 2SK216K

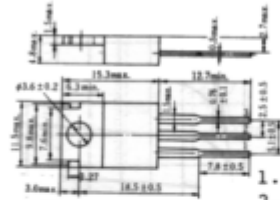
## SILICON N-CHANNEL MOS FET

HIGH SPEED POWER SWITCHING,  
HIGH FREQUENCY POWER AMPLIFIER  
Complementary Pair with 2SJ77, J79



**Features;**

- High Speed Switching.
- High Cutoff Frequency. ( $f_c=30\text{MHz}$ )
- High Breakdown Voltage.
- Suitable for Switching Regulator, DC-DC Converter, RF Amplifiers, and Ultrasonic Power Oscillators.



(Dimensions in mm)  
**(JEDEC TO-220AB)**

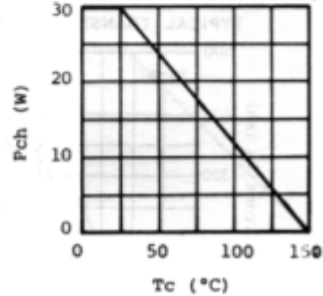
1. Gate
2. Source (Flange)
3. Drain

**■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)**

Item	Symbol	Rating		Unit
		K214 (K)	K216 (K)	
Drain-Source Voltage	$V_{DSX}$	160	200	V
Gate-Source Voltage	$V_{GSS}$	±15		V
Drain Current	$I_D$	500		mA
Body-Drain Diode Reverse Drain Current	$I_{DR}$	500		mA
Channel Dissipation	Pch	1.75		W
	Pch*	30		W
Channel Temperature	Tch	150		°C
Storage Temperature	Tstg	-45 ~ +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	K214 (K)	$I_D=1\text{mA}, V_{GS}=-2\text{V}$	160	-	-	V
	K216 (K)		200	-	-	V
Gate-Source Breakdown Voltage	$V_{(BR)GSS}$	$I_G=\pm 10\mu\text{A}, V_{DS}=0$	±15	-	-	V
Gate-Source Voltage	$V_{GS(on)}$	$I_D=10\text{mA}, V_{DS}=10\text{V}^*$	0.2	-	1.5	V
Drain-Source Saturation Voltage	$V_{DS(sat)}$	$I_D=10\text{mA}, V_{GD}=0^*$	-	-	2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$I_D=10\text{mA}, V_{DS}=20\text{V}^*$	-	40	-	mS
Input Capacitance	Ciss	$V_{DS}=10\text{V}, I_D=10\text{mA}, f=1\text{MHz}$	-	90	-	pF
Reverse Transfer Capacitance	Crss		-	2.2	-	pF

\*Pulse Test

2SK214®, 2SK216®

