

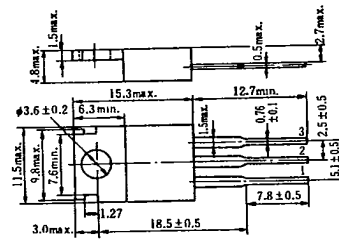
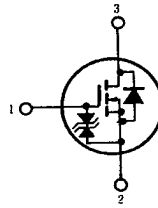
2SK214(K), 2SK216(K)

SILICON N-CHANNEL MOS FET

**HIGH SPEED POWER SWITCHING,
HIGH FREQUENCY POWER AMPLIFIER**
Complementary Pair with 2SJ77 (K), J79 (K)

■ FEATURES

- High Speed Switching.
- High Cutoff Frequency.
- High Breakdown Voltage.
- Suitable for Switching Regulator, DC-DC Converter, RF Amplifiers, and Ultrasonic Power Oscillators.



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

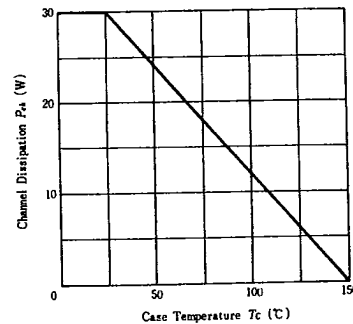
(JEDEC TO-220AB)

■ ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

Item	Symbol	Rating		Unit
		2SK214(K)	2SK216(K)	
Drain-Source Voltage	V_{DS}	160	200	V
Gate-Source Voltage	V_{GS}	± 15		V
Drain Current	I_D	500		mA
Body-Drain Diode Reverse Drain Current	I_{DR}	500		mA
Channel Dissipation	P_{ch}	1.75		W
	P_{ch}^*	30		W
Channel Temperature	T_{ch}	150		$^\circ\text{C}$
Storage Temperature	T_{stg}	$-45 \sim +150$		$^\circ\text{C}$

*Value at $T_c=25^\circ\text{C}$

POWER VS. TEMPERATURE DERATING

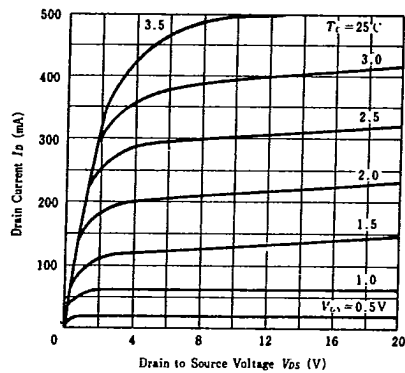


■ ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

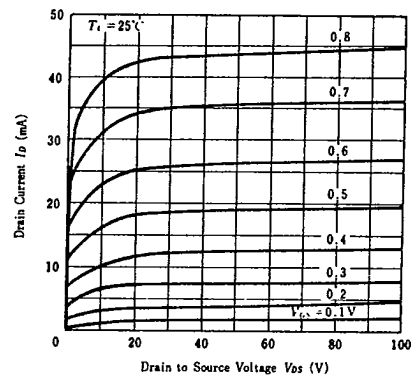
Item	Symbol	Test Condition	min.	typ.	max.	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DS}$	$I_D=1\text{mA}, V_{GS}=-2\text{V}$	160	—	—	V
			200	—	—	V
Gate-Source Breakdown Voltage	$V_{(BR)GS}$	$I_G=\pm 10\mu\text{A}, V_{DS}=0$	± 15	—	—	V
Gate-Source Voltage	$V_{GS(on)}$	$I_D=10\text{mA}, V_{DS}=10\text{V}^*$	0.2	—	1.5	V
Drain-Source Saturation Voltage	$V_{DS(sat)}$	$I_D=10\text{mA}, V_{GS}=0^*$	—	—	2.0	V
Forward Transfer Admittance	$ y_{fs} $	$I_D=10\text{mA}, V_{DS}=20\text{V}^*$	20	40	—	mS
Input Capacitance	C_{iss}	$V_{DS}=10\text{V}, I_D=10\text{mA}, f=1\text{MHz}$	—	90	—	pF
Output Capacitance	C_{oss}		—	2.2	—	pF

*Pulse Test

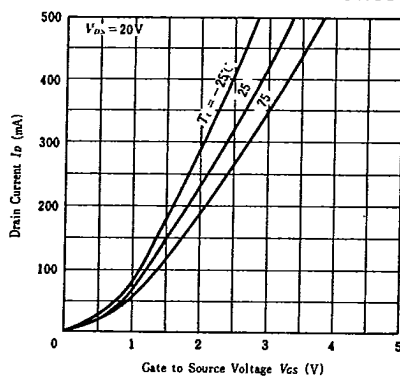
TYPICAL OUTPUT CHARACTERISTICS



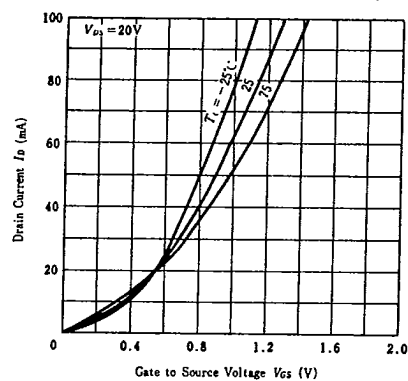
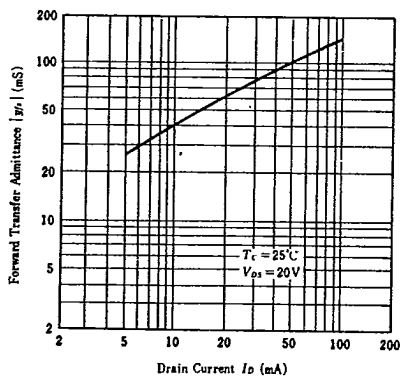
TYPICAL OUTPUT CHARACTERISTICS



TYPICAL TRANSFER CHARACTERISTICS



TYPICAL TRANSFER CHARACTERISTICS

FORWARD TRANSFER ADMITTANCE
VS. DRAIN CURRENTFORWARD TRANSFER ADMITTANCE
VS. FREQUENCY