

SAMSUNG SEMICONDUCTOR INC

14E D 7964142 0007004 T

**KSK123**

**SI N-CHANNEL JUNCTION FET**

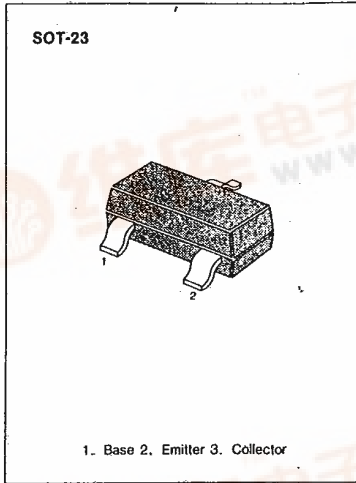
T-29-25

**AF IMPEDANCE CONVERTER**

- BUILT-IN DIODE BETWEEN G AND S
- LOW NV

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub> = 25°C)**

Characteristic	Symbol	Rating	Unit
Drain Source Voltage	V <sub>DSO</sub>	20	V
Drain Gate Voltage	V <sub>DGO</sub>	20	V
Drain Source Current	I <sub>DSO</sub>	2	mA
Drain Gate Current	I <sub>DGO</sub>	2	mA
Gate Source Current	I <sub>GSO</sub>	2	mA
Power Dissipation	P <sub>D</sub>	200	mW
Operate Temperature	T <sub>OPR</sub>	-20~80	°C
Storage Temperature	T <sub>STG</sub>	-55~100	°C



1. Base 2. Emitter 3. Collector

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub> = 25°C)**

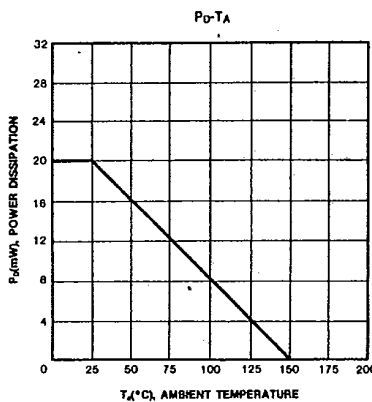
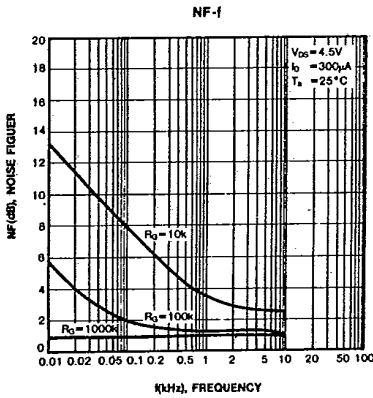
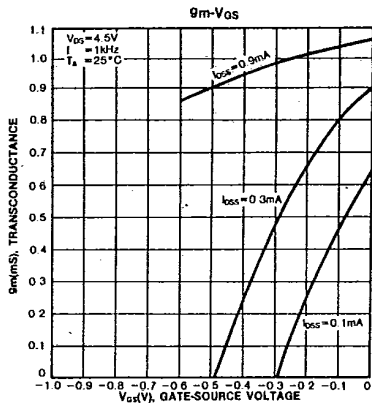
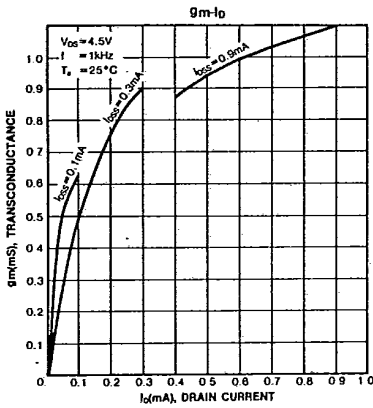
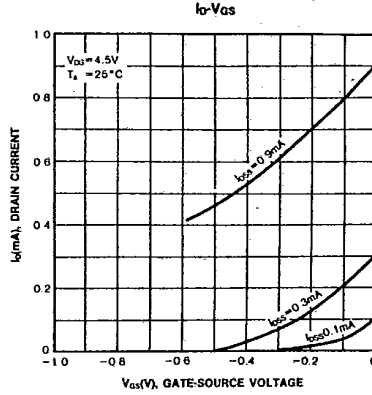
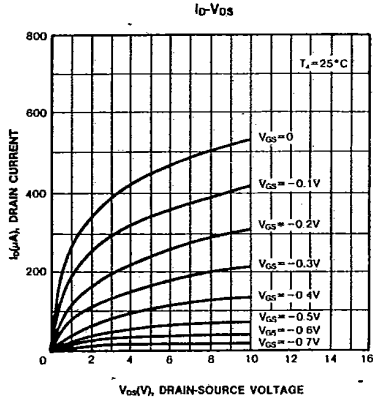
Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Drain Current	I <sub>DSO</sub>	V <sub>DS</sub> =4.5V, V <sub>GS</sub> =0 R <sub>S</sub> =2.2kohm ± 1%	130	200	470	μA
Transconductance	gm	V <sub>DS</sub> =4.5V, V <sub>GS</sub> =0 R <sub>S</sub> =2.2kohm ± 1%, f=1kHz	0.9	1.6	4	mS μV
Voltage Gain	G <sub>v1</sub>	C <sub>G</sub> =10pF, A curve V <sub>DS</sub> =4.5V, R <sub>S</sub> =2.2kohm ± 1%	-1			dB
Voltage Gain	G <sub>v2</sub>	C <sub>G</sub> =10pF, E <sub>G</sub> =10mV, f=70Hz	0			dB
Voltage Gain	G <sub>v3</sub>	V <sub>DS</sub> =1.5V, R <sub>S</sub> =2.2kohm ± 1%, C <sub>G</sub> =10pF, E <sub>G</sub> =10mV, f=70Hz	-4			dB



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