
2SK217

Silicon N-Channel Junction FET

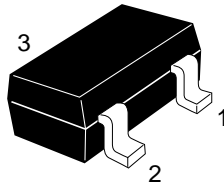
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Application

VHF amplifier

Outline

MPAK



1. Gate
2. Drain
3. Source

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

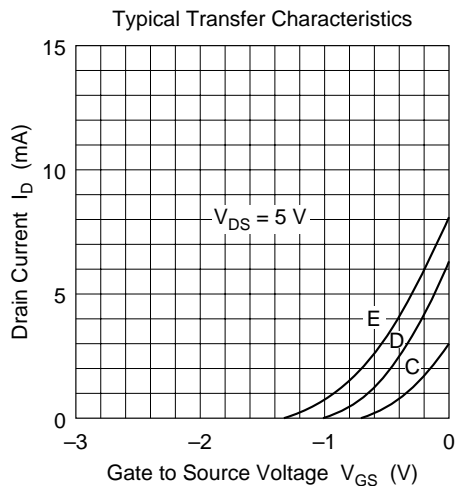
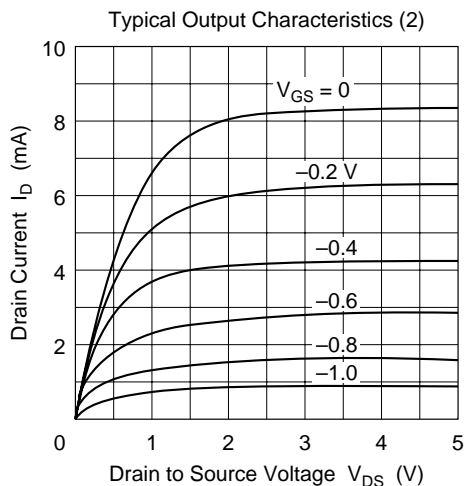
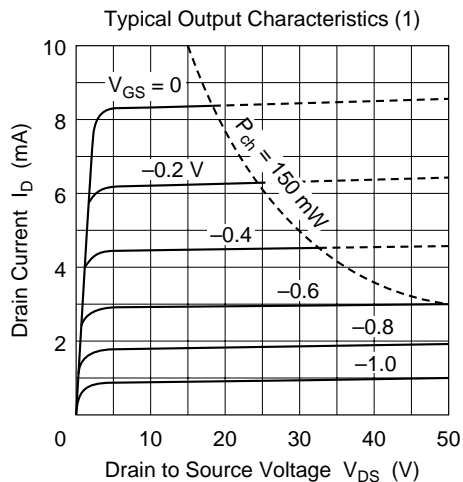
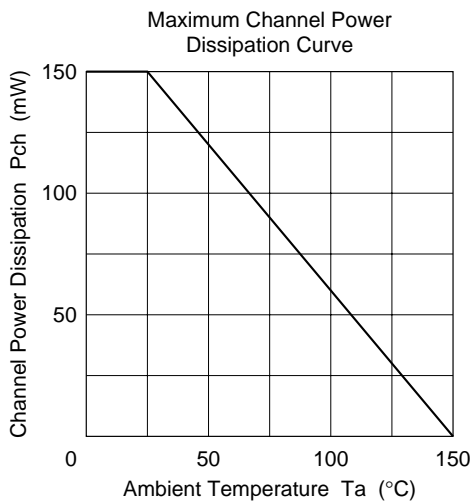
Item	Symbol	Ratings	Unit
Gate to drain current	V_{GDO}	-30	V
Drain current	I_{D}	20	mA
Gate current	I_{G}	10	mA
Channel power dissipation	Pch	150	mW
Channel temperature	Tch	150	$^\circ\text{C}$
Storage temperature	Tstg	-55 to +150	$^\circ\text{C}$

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

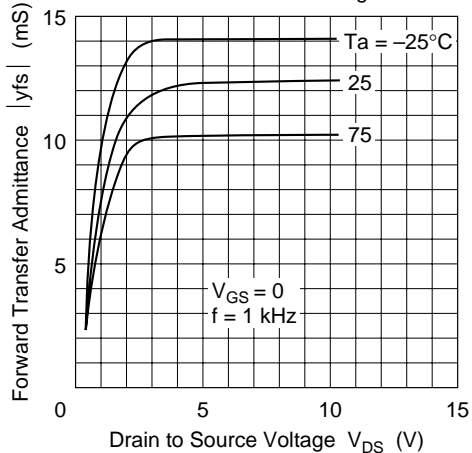
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Gate to drain breakdown voltage	$V_{(\text{BR})\text{GDO}}$	-30	—	—	V	$I_{\text{G}} = -100 \mu\text{A}$
Gate cutoff current	I_{GSS}	—	—	-10	nA	$V_{\text{GS}} = -0.5 \text{ V}, V_{\text{DS}} = 0$
Gate to source cutoff voltage	$V_{\text{GS}(\text{off})}$	—	—	-2.5	V	$V_{\text{DS}} = 5 \text{ V}, I_{\text{D}} = 10 \mu\text{A}$
Drain current	I_{DSS}^{*1}	2.5	—	12	mA	$V_{\text{DS}} = 5 \text{ V}, V_{\text{GS}} = 0$
Forward transfer admittance	$ y_{\text{fs}} $	—	8.0	—	mS	$V_{\text{DS}} = 5 \text{ V}, V_{\text{GS}} = 0, f = 1 \text{ kHz}$
Reverse transfer capacitance	Crss	—	0.1	—	pF	$V_{\text{DS}} = 5 \text{ V}, V_{\text{GS}} = 0, f = 1 \text{ MHz}$

Note: 1. The 2SK217 is grouped by I_{DSS} as follows.

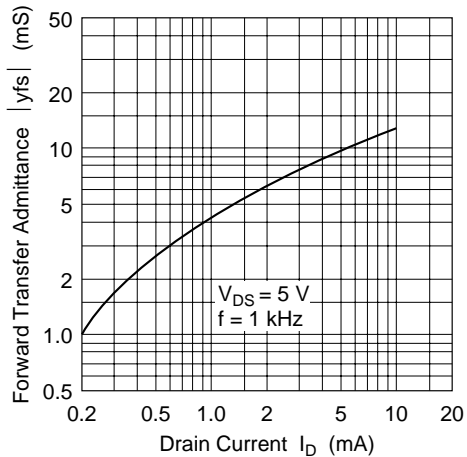
Grade	C	D	E
Mark	ZC	ZD	ZE
I_{DSS}	2.5 to 5	4 to 8	6 to 12



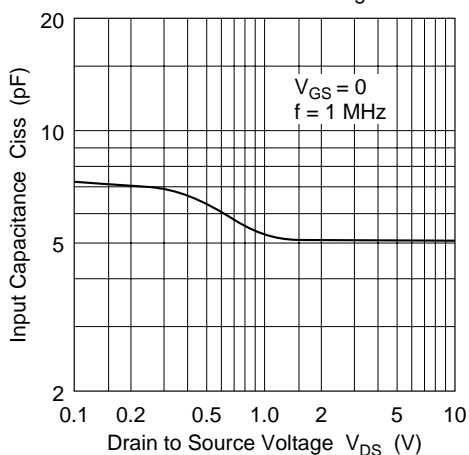
Forward Transfer Admittance vs. Drain to Source Voltage



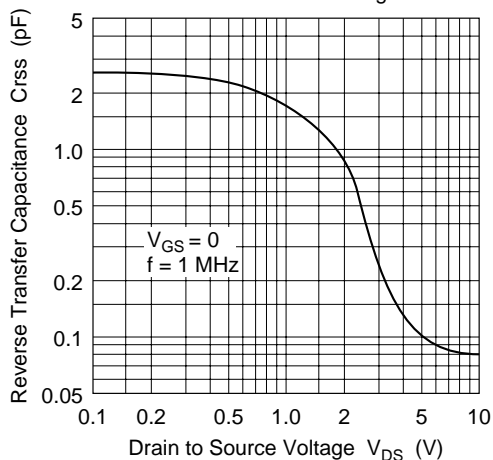
Forward Transfer Admittance vs. Drain Current

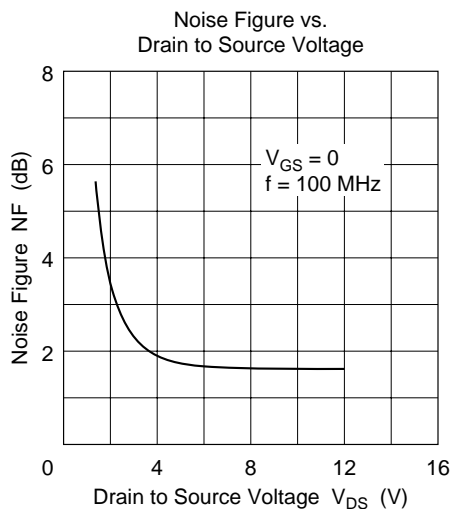
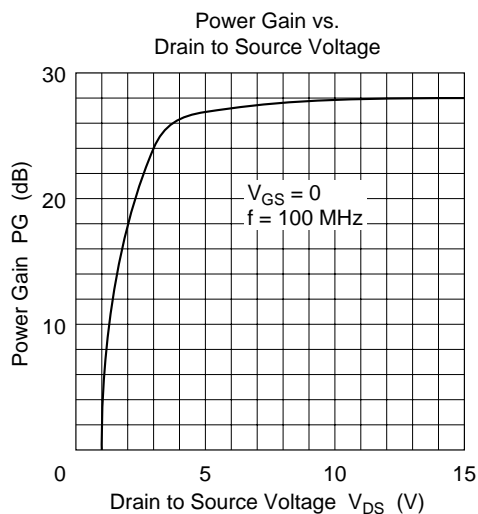
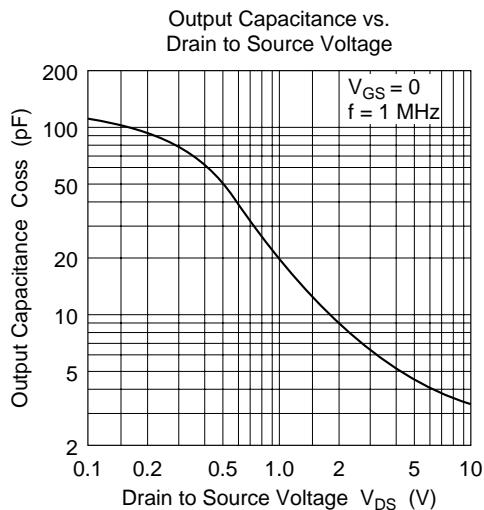


Input Capacitance vs. Drain to Source Voltage

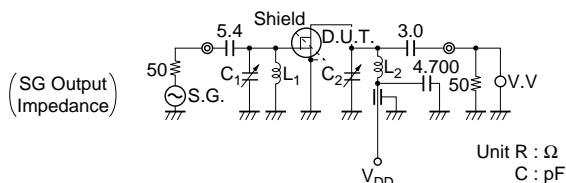


Reverse Transfer Capacitance vs. Drain to Source Voltage

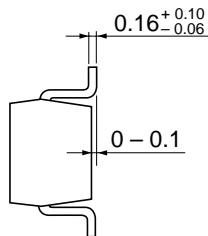
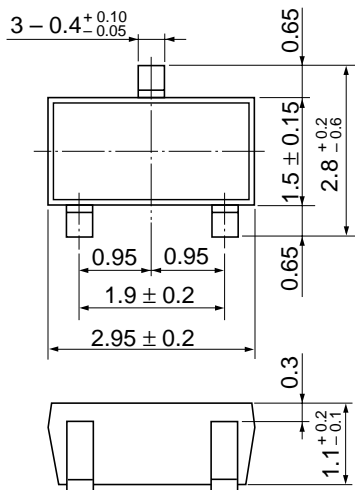




Power Gain and Noise Figure Test Circuit



- C_1, C_2 : 0 to 30pF Variable Air
- L_1 : 3.5 T $\phi 1$ mm Copper Ribbon, Tin plated 10 mm Inside dia.
- L_2 : 4.5 T $\phi 1$ mm Copper Ribbon, Tin plated 10 mm Inside dia.



Hitachi Code	MPAK
JEDEC	—
EIAJ	Conforms
Weight (reference value)	0.011 g

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