F-36

NJ450 Process

Silicon Junction Field-Effect Transistor

- LOW R(on) Switch
- Low-Noise, High Gain Amplifier

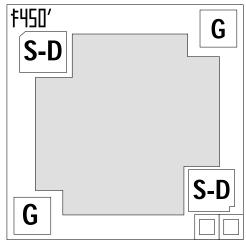
Absolute maximum ratings at TA = 25 °C

Gate Current, Ig 10 mA Operating Junction Temperature, Tj $+150^{\circ}$ C Storage Temperature, Ts -65° C to $+175^{\circ}$ C

Devices in this Databook based on the NJ450 Process.

Datasheet

2SK363 IFN146, IFN147 IFN363 J108, J109 J110, J110A



Die Size = 0.028" X 0.028" All Bond Pads = 0.004" Sq. Substrate is also Gate.

At 25°C free air temperature:			NJ450 Process						
Static Electrical Characteristics		Min	Тур	Max	Unit	Test Conditions			
Gate Source Breakdown Voltage	V _{(BR)GSS}	- 25	- 30		V	$I_G = -1 \mu A$, $V_{DS} = \emptyset V$			
Reverse Gate Leakage Current	I _{GSS}		- 50	- 1000	рА	$V_{GS} = -15 V$, $V_{DS} = \emptyset V$			
Drain Saturation Current (Pulsed)	I _{DSS}	5		600	mA	$V_{DS} = 15 V$, $V_{GS} = \emptyset V$			
Gate Source Cutoff Voltage	V _{GS(OFF)}	- 0.1		- 10	V	V _{DS} = 15 V, I _D = 1 nA			

Dynamic Electrical Characteristics

Drain Source ON Resistance	r _{ds(on)}	7	Ω	$I_D = 1 \text{ mA}, V_{GS} = \emptyset V$	f = 1 kHz
Forward Transconductance	9 _{fs}	250	mS	$V_{DS} = 15 V$, $V_{GS} = \emptyset V$	f = 1 kHz
Input Capacitance	C _{iss}	20	pF	$V_{DS} = \emptyset V$, $V_{GS} = -10 V$	f = 1 MHz
Feedback Capacitance	C _{rss}	10	pF	$V_{DS} = \emptyset V$, $V_{GS} = -10 V$	f = 1 MHz

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