

NJ16 Process

Silicon Junction Field-Effect Transistor

- Low Current Switch
- General Purpose Amplifier
- High Breakdown Voltage

Absolute maximum ratings at TA = 25 °C

Gate Current, I _g	10 mA
Operating Junction Temperature, T _j	+150°C
Storage Temperature, T _s	- 65°C to +175°C

Devices in this Databook based on the NJ16 Process.

Datasheet

2N3954, 2N3955

2N3956

2N3957, 2N3958

2N4220, 2N4220A

2N4221, 2N4221A

2N4338, 2N4339

2N4340, 2N4341

2N4867, 2N4867A

2N4868, 2N4868A

2N4869, 2N4869A

Datasheet

2SK17, 2SK40

2SK59, 2SK105

IFN17, IFN40

IFN59, IFN105

J201, J202

J203, J204

J230, J231

J232

J500, J501

J502, J503

Datasheet

J504, J505

J506, J507

J508, J509

J510, J511

J553, J554

J555, J556

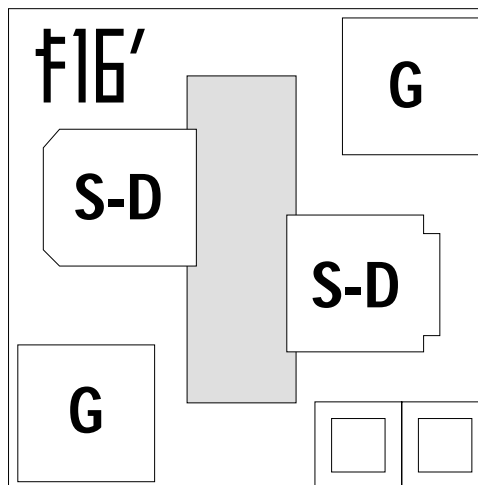
J557

U553, U554

U555, U556

U557

VCR4N



Die Size = 0.017" X 0.017"

All Bond Pads = 0.004" Sq.

Substrate is also Gate.

At 25°C free air temperature:

Static Electrical Characteristics

		NJ16 Process						
		Min	Typ	Max	Unit	Test Conditions		
Gate Source Breakdown Voltage	V _{(BR)GSS}	- 50	- 60		V	I _G = - 1 μA, V _{DS} = 0V		
Reverse Gate Leakage Current	I _{GSS}		- 10	- 100	pA	V _{GS} = - 30V, V _{DS} = 0V		
Drain Saturation Current (Pulsed)	I _{DSS}	0.2		9	mA	V _{DS} = 15V, V _{GS} = 0V		
Gate Source Cutoff Voltage	V _{GS(OFF)}	- 0.8		- 5.5	V	V _{DS} = 15V, I _D = 1 nA		

Dynamic Electrical Characteristics

Forward Transconductance	g _{fs}		2.2		mS	V _{DS} = 15V, V _{GS} = 0V	f = 1 kHz
Input Capacitance	C _{iss}		3.5		pF	V _{DS} = 15V, V _{GS} = 0V	f = 1 MHz
Feedback Capacitance	C _{rss}		1.2		pF	V _{DS} = 15V, V _{GS} = 0V	f = 1 MHz
Equivalent Noise Voltage	e _N		6		nV/√HZ	V _{DS} = 10V, I _D = 5 mA	f = 1 kHz

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