

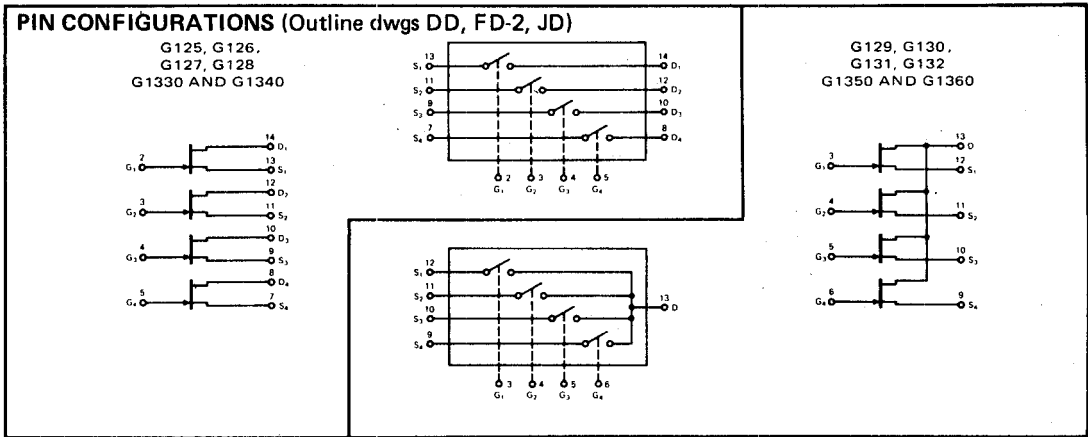
**4-Channel Junction FET Switches**

**FEATURES**

- $r_{DS(ON)} < 10$  ohms: G1340 and G1360
- $I_{D(OFF)} < 50$  pA: G125, G126, G129 and G130
- $C_{DG}, C_{SG} < 2$  pF: G125, G126, G129 and G130

**GENERAL DESCRIPTION**

These switches consist of four N-Channel Junction FETS in a single package. In the G129, G130, G131, G132, G1350 and G1360 the drains are common to assist the designer in applications such as multiplexing.



3

**ELECTRICAL CHARACTERISTICS** per channel (25°C unless otherwise noted)

CHARACTERISTIC		TEST CONDITIONS	G125 G129	G126 G130	G127 G131	G128 G132	G1330 G1350	G1340 G1360	UNIT	LIMIT	
$I_{GSS}$	Gate Reverse Current	$V_{GS} = -20V, V_{DS} = 0$	25°C	-0.1	-0.1	-0.2	-0.2	-5.0	nA	Max	
			125°C	-0.1	-0.1	-0.2	-0.2	-5.0	μA		
$BV_{GSS}$	Gate-Source Break-down Voltage	$I_G = -1 \mu A, V_{DS} = 0$	-40	-40	-40	-40	-30	-30	V	Min	
$V_P$	Gate-Source Pinch-Off Voltage	$V_{DS} = 10V, I_D = 0.1 \mu A$	-5	-10	-5	-10	-5	-10	V	Max	
$I_{D(OFF)}$	Drain Cutoff Current	$V_{DS} = 10V, V_{GS} = -10V$	25°C	0.05	0.05	0.1	0.1	0.5	0.5	nA	Max
			125°C	0.05	0.05	0.1	0.1	0.5	0.5	μA	
$I_{S(OFF)}$	Source Cutoff Current	$V_{SD} = 10V, V_{GD} = -10V$	25°C	0.05	0.05	0.1	0.1	0.5	0.5	nA	Max
			125°C	0.05	0.05	0.1	0.1	0.5	0.5	μA	
$I_{DSS}$	Drain Current at Zero Gate Voltage	$V_{DS} = 10V, V_{GS} = 0$ (Pulsed)	0.5	2	5	10	15	30	mA	Min	
$r_{DS}$	Drain-Source ON Resistance	$V_{GS} = 0, I_D = 0, f = 1$ kHz	500	250	90	45	20	10	Ω	Max	
$C_{DG} + C_{SG}$	Gate-Source plus Gate-Drain ON Capacitance	$V_{GS} = 0, V_{DS} = 0, f = 1$ MHz	10	10	40	40	300	300	pF	Max	
$C_{DG}$	Drain-Gate OFF Capacitance	$V_{GS} = -10V, V_{DS} = 0, f = 1$ MHz	2	2	7	7	16	16	pF	Max	
$C_{SG}$	Source-Gate OFF Capacitance		2	2	7	7	16	16	pF	Max	

# Q125 — Q132, Q1330/40/50/60

INTERSIL

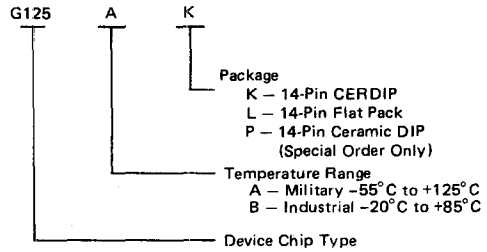
## ABSOLUTE MAXIMUM RATINGS

Gate-Drain or Gate-Source Voltage	-40V
Gate Current	50 mA
Total Device Dissipation Free Air (Note)	500 mW
Storage Temperature Range	-65 to +150°C
Operating Temperature	-65 to +150°C
Lead Temperature (Soldering, 10 sec)	300°C

**NOTE:** Dissipation rating assumes device is mounted with all leads welded or soldered to printed circuit board in ambient temperature below 75°C. For higher temperatures, derate the device at the rate of 6.7 mW/°C.

Stresses above those listed under Absolute Maximum Ratings may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions above those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

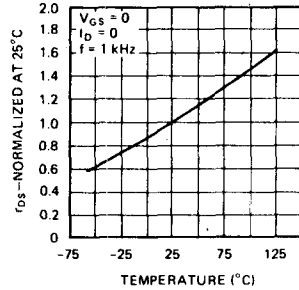
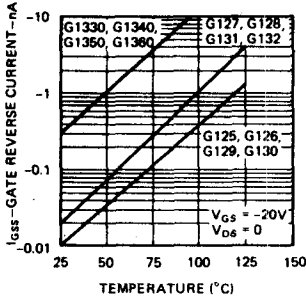
## ORDERING INFORMATION



**NOTE:** Ceramic DIP available for military temperature range only.

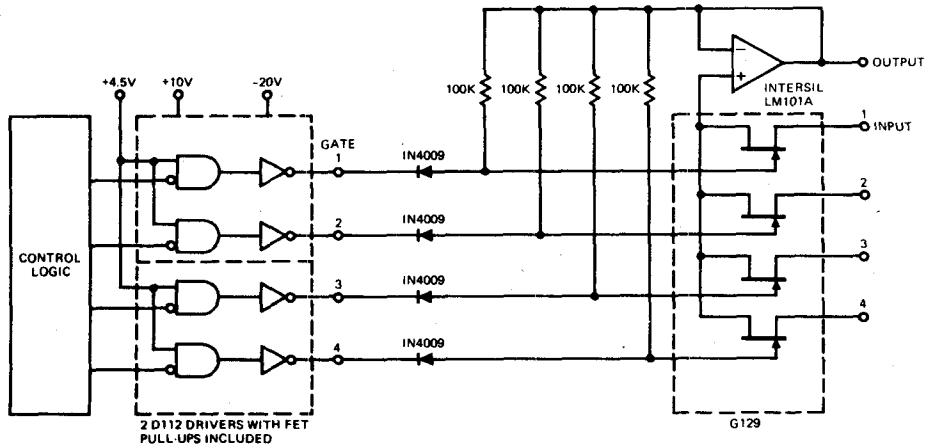
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## TYPICAL CHARACTERISTICS



## APPLICATION

4-Channel Commutator Circuit



INPUT RANGE: -10 to +10V  
 GATE: LOGIC "1" FOR SWITCH ON  
 LOGIC "0" FOR SWITCH OFF