IFN5432, IFN5433, IFN5434

N-Channel Silicon Junction Field-Effect Transistor

- Analog Low On Resistance Switches
- Choppers

Absolute maximum ratings at T_A = 25°C

Reverse Gate Source & Reverse Gate Drain Voltage	– 25 V
Continuous Forward Gate Current	100 mA
Continuous Device Power Dissipation	300 mW
Power Derating	2.4 mW/°C

At 25°C free air temperature: Static Electrical Characteristics		IFN5432		IFN5433		IFN5434		Process NJ903		
		Min	Max	Min	Max	Min	Max	Unit	Test Conditions	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	– 25		– 25		– 25		V	I_G = – 1µA, V_{DS} = ØV	
Gate Reverse Current	I_{GSS}		– 200		– 200		– 200	pA	V_{GS} = – 15V, V_{DS} = ØV	
			– 200		– 200		– 200	nA	V_{GS} = – 15V, V_{DS} = ØV	T_A = 150°C
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	– 4	– 10	– 3	– 9	– 1	– 4	V	V_{DS} = 5V, I_G = 3 nA	
Drain Saturation Current (Pulsed)	I_{DSS}	150		100		30		mA	V_{DS} = 15V, V_{GS} = ØV	
Drain Cutoff Current	$I_{D(OFF)}$		200		200		200	pA	V_{DS} = 5V, V_{GS} = – 10V	
			200		200		200	nA	V_{DS} = 5V, V_{GS} = – 10V	T_A = 150°C
Drain Source ON Voltage	V_{DS}		50		70		100	mV	V_{GS} = ØV, I_D = 10 mA	
Static Drain Source ON Resistance	$r_{DS(ON)}$	2	5		7		10	Ω	V_{DS} = ØV, I_D = 10 mA	
Dynamic Electrical Characteristics										
Drain Source ON Resistance	$r_{ds(on)}$		5		7		10	Ω	V_{GS} = ØV, I_D = ØA	f = 1 kHz
Common Source Input Capacitance	C_{iss}		60		60		60	pF	V_{DS} = ØV, V_{GS} = – 10V	f = 1 MHz
Common Source Reverse Transfer Capacitance	C_{rss}		20		20		20	pF	V_{DS} = ØV, V_{GS} = – 10V	f = 1 MHz
Switching Characteristics										
Turn ON Delay Time	$t_{d(on)}$		4		4		4	ns	V_{DD} = 1.5 V, $V_{GS(ON)}$ = ØV $V_{GS(OFF)}$ = – 12V, $I_{D(ON)}$ = 10 mA **(IFN5432)** R_L = 145 Ω **(IFN5433)** R_L = 143 Ω **(IFN5433)** R_L = 140 Ω	
Rise Time	t_r		1		1		1	ns		
Turn OFF Delay Time	$t_{d(off)}$		6		6		6	ns		
Fall Time	t_f		30		30		30	ns		

TO-52 Package
Dimensions in Inches (mm)

Pin Configuration
1 Source, 2 Drain, 3 Gate & Case

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