2N4340, 2N4341

N-Channel Silicon Junction Field-Effect Transistor

- Small Signal Amplifiers
- Current Regulators
- Voltage-Controlled Resistors

Absolute maximum ratings at T_A = 25°C

Reverse Gate Source & Reverse Gate Drain Voltage	– 50 V
Continuous Forward Gate Current	50 mA
Continuous Device Power Dissipation	300 mW
Power Derating (to 175°C)	2mW/°C

At 25°C free air temperature:		2N4340		2N4341		Process NJ16		
Static Electrical Characteristics		**Min**	**Max**	**Min**	**Max**	**Unit**	**Test Conditions**	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	– 50		– 50		V	I_G = – 1 µA, V_{DS} = ØV	
Gate Reverse Current	I_{GSS}		– 100		– 100	pA	V_{GS} = – 30 V, V_{DS} = ØV	
			– 100		– 100	nA	V_{GS} = – 30 V, V_{DS} = ØV	T_A = 150°C
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	– 1	– 3	– 2	– 6	V	V_{DS} = 15 V, I_D = 0.1 µA	
Drain Saturation Current (Pulsed)	I_{DSS}	1.2	3.6	3	9	mA	V_{DS} = 15 V, V_{GS} = ØV	
Drain Cutoff Current	$I_{D(OFF)}$		0.05 (– 5)		0.07 (– 10)	nA V	V_{DS} = 15 V, V_{GS} = ( )	

Dynamic Electrical Characteristics

Drain Source ON Resistance	$r_{ds(on)}$		1500		800	Ω	V_{GS} = ØV, I_D = Ø A	f = 1 kHz
Common Source Forward Transconductance	g_{fs}	1300	3000	2000	4000	µS	V_{DS} = 15 V, V_{GS} = ØV	f = 1 kHz
Common Source Output Conductance	g_{os}		30		60	µS	V_{DS} = 15 V, V_{GS} = ØV	f = 1 kHz
Common Source Input Capacitance	C_{iss}		7		7	pF	V_{DS} = 15 V, V_{GS} = ØV	f = 1 MHz
Common Source Reverse Transfer Capacitance	C_{rss}		3		3	pF	V_{DS} = 15 V, V_{GS} = ØV	f = 1 MHz
Noise Figure	NF		1		1	dB	V_{DS} = 15 V, V_{GS} = ØV R_G = 1 MΩ, BW = 200 Hz	f = 1 kHz

TO-18 Package
Dimensions in Inches (mm)

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

Surface Mount
SMP4340, SMP4341

InterFET Corporation
1000 N. Shiloh Road, Garland, TX 75042
(972) 487-1287 FAX (972) 276-3375
www.interfet.com