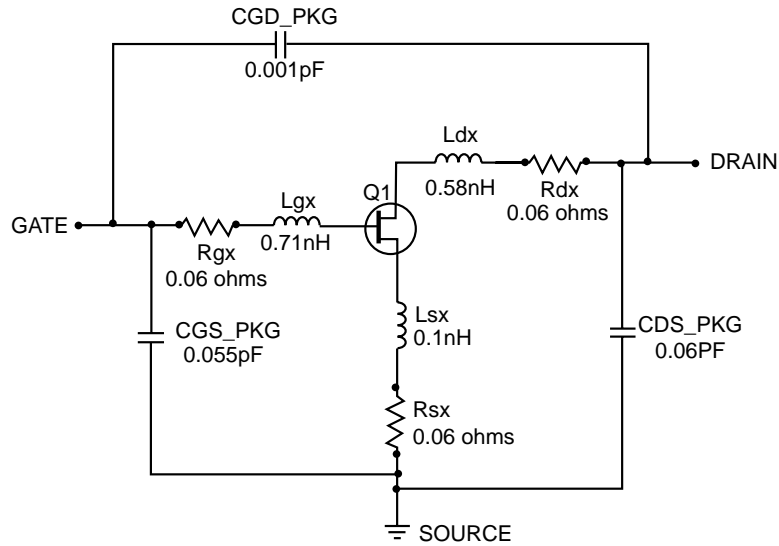


### SCHEMATIC



### FET NONLINEAR MODEL PARAMETERS <sup>(1)</sup>

Parameters	Q1	Parameters	Q1
VTO	-1.699	RG	7
VTOSC	0	RD	6
ALPHA	2.5	RS	4
BETA	0.0254	RGMET	0
GAMMA	0.09	KF	1.36e-10
GAMMADC	0.09	AF	1.74
Q	1.95	TNOM	27
DELTA	1.1	XTI	3
VBI	0.8	EG	1.43
IS	1e-14	VTOTC	0
N	1.2	BETATCE	0
RIS	0	FFE	1
RID	0		
TAU	6e-12		
CDS	0.18e-12		
RDB	5000		
CBS	1e-10		
CGSO	0.7e-12		
CGDO	0.055e-12		
DELTA1	1.2		
DELTA2	1		
FC	0.5		
VBR	Infinity		

### UNITS

Parameter	Units
time	seconds
capacitance	farads
inductance	henries
resistance	ohms
voltage	volts
current	amps

### MODEL RANGE

Frequency: 0.1 to 18 GHz  
 Bias:  $V_{DS} = 2\text{ V to }4\text{ V}$ ,  $I_D = 20\text{ mA to }40\text{ mA}$   
 Date: 7/97

Note:  
 This nonlinear model utilized the latest data available.  
 See our Design Parameter Library at [www.cel.com](http://www.cel.com) for this data.

(1) Series IV Libra TOM Model