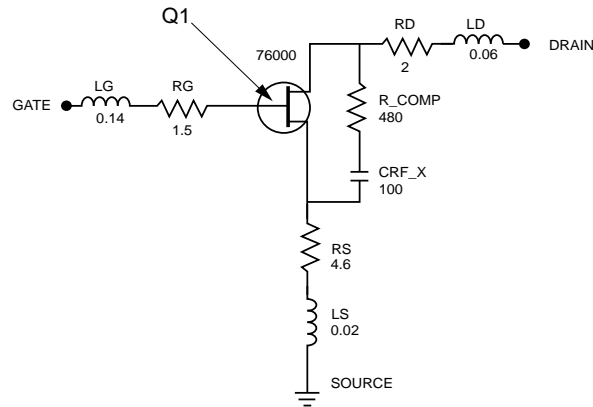


SCHEMATIC



FET NONLINEAR MODEL PARAMETERS (1)

| Parameters | Q1 | Parameters | Q1 |
|------------------------|----------|------------|------|
| VTO | -0.73 | RG | 0 |
| VTOSC | 0 | RD | 0 |
| ALPHA | 4 | RS | 0 |
| BETA | 0.063 | RGMET | 0 |
| GAMMA | 0 | KF | 0 |
| GAMMADC ⁽²⁾ | 0.06 | AF | 1 |
| Q | 2.2 | TNOM | 27 |
| DELTA | 0.7 | XTI | 3 |
| VBI | 0.626 | EG | 1.43 |
| IS | 1.98e-11 | VTOTC | 0 |
| N | 1.4 | BETATCE | 0 |
| RIS | 0 | FFE | 1 |
| RID | 0 | | |
| TAU | 3.2e-12 | | |
| CDS | 0.11e-12 | | |
| RDB | Infinity | | |
| CBS | 0 | | |
| CGSO ⁽³⁾ | 0.4e-12 | | |
| CGDO ⁽⁴⁾ | 0.04e-12 | | |
| DELTA ¹ | 0.3 | | |
| DELTA ² | 0.2 | | |
| FC | 0.5 | | |
| VBR | Infinity | | |

UNITS

| Parameter | Units |
|-------------|-------------|
| capacitance | picofarads |
| inductance | nanohenries |
| resistance | ohms |

MODEL RANGE

Frequency: 0.05 to 26 GHz
 Bias: $V_{DS} = 3\text{ V}$, $I_D = 10\text{ mA}$
 Date: 8/30/96

(1) Series IV Libra TOM Model

The parameter in Libra corresponds to the parameter in PSpice:

- | | |
|-------------|-------|
| (2) GAMMADC | GAMMA |
| (3) CGSO | CGS |
| (4) CGDO | CGD |

California Eastern Laboratories

EXCLUSIVE NORTH AMERICAN AGENT FOR **NEC** RF, MICROWAVE & OPTOELECTRONIC SEMICONDUCTORS

CEL CALIFORNIA EASTERN LABORATORIES • Headquarters • 4590 Patrick Henry Drive • Santa Clara, CA 95054-1817 • (408) 988-3500 • Telex 34-6393 • FAX (408) 988-0279
 24-Hour Fax-On-Demand: 800-390-3232 (U.S. and Canada only) • Internet: <http://WWW.CEL.COM>

DATA SUBJECT TO CHANGE WITHOUT NOTICE

PRINTED IN USA ON RECYCLED PAPER -2/97