

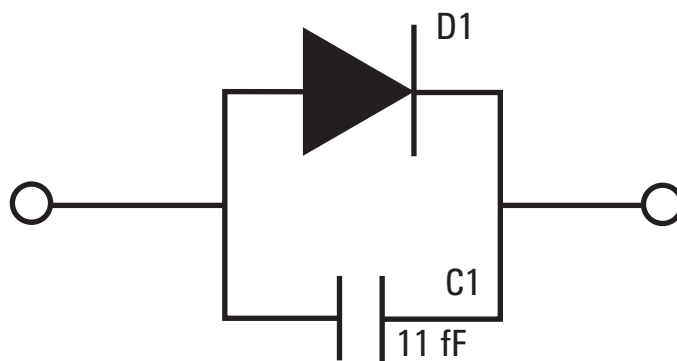
Keysight Technologies

TC421 Diode Model

Technical Overview

Description

This product note provides a Spice model and a Libra model of the TC421 discrete Schottky barrier GaAs diode. The 11 femto-farad parallel capacitor represents the parasitic capacitance of the bond pads.



Spice Model

```
VSOURCE 1 0
VMON 1 2 DC 0
D1 2 0 DMOD1
C1 2 0 .011P
TEMP 25 65
MODEL DMOD1 D IS = 500U
      RS=7 CJO=1F EG=1.42 N=1.2 PB=.65
      BV=8 IBV=1E -5
DCV VSOURCE -8 1 .1
PLOT DC I(VMON)
END
```

Libra DCTR Model

DIM

IND NH
CAP PF
FREQ GHZ
PWR DBM
CUR MA

CKT

```
RES_1 1 2 R=0.1 !current measuring element
DIODE_D1 2 0 [MODEL=DMOD1]
CAP_1 2 0 c=0.011
DEF1P 1 HPD
```

MODEL

```
DMOD1 D IS=5E-14 RS =7 CJO=17E-15
EG=1.42 N=1.2 VJ=0.65
```

SOURCE

```
HPD VS_D1 1 0 DC=1
```

DCTR

```
DCTR1 VS_D1
SWEEP -8 1 0.1
```

OUT

```
HPD I_HP9401 RES_1 GR1
```

GRID

```
DCTR1 -8 1 1
GR1 -10 25 5
```



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This publication was previously known as Product Note #01.

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