

Philips Components

T-35-25

2N3819
N-channel J-FET

Data sheet	
status	Preliminary specification
date of issue	October 1990

FEATURES

- Low cost
- Specified at 100 MHz
- Automatic insertion package.

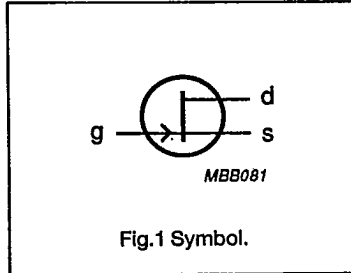
DESCRIPTION

N-channel junction field-effect transistor in a plastic TO-92 envelope. It is intended for use in general purpose amplifiers and for analog switching.

PINNING - TO-92

PIN	DESCRIPTION
1	drain
2	gate
3	source

PIN CONFIGURATION



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LIMITING VALUES

In accordance with the Absolute Maximum System (IEC 134)

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$\pm V_{DS}$	drain-source voltage		-	25	V
$-V_{GS}$	gate-source voltage	open drain $I_D = 0$	-	25	V
V_{DG}	drain-gate voltage	open source $I_S = 0$	-	25	V
I_G	gate current		-	10	mA
P_{tot}	total power dissipation	$T_{amb} = 25^\circ C$	-	360	mW
T_{stg}	storage temperature range		-65	150	$^\circ C$
T_J	junction temperature		-	150	$^\circ C$

THERMAL RESISTANCE

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-a}$	from junction to ambient	347	K/W

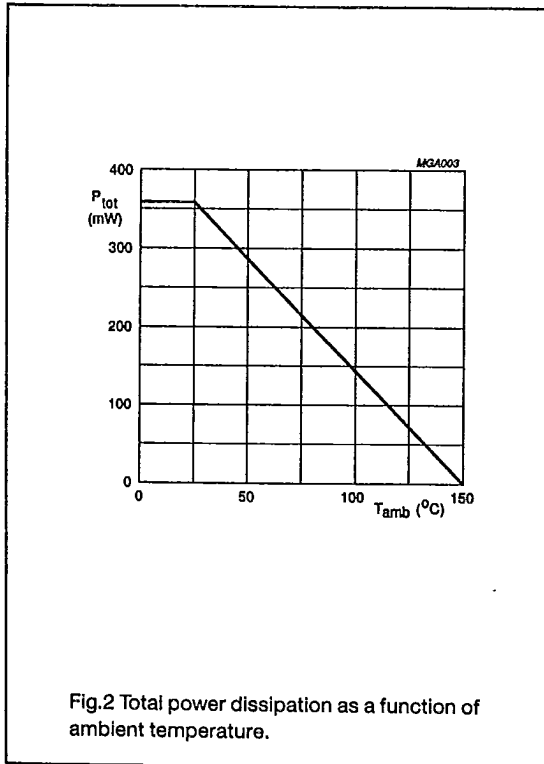


Fig.2 Total power dissipation as a function of ambient temperature.

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CHARACTERISTICST_{amb} = 25 °C unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$-V_{(BR)GSS}$	gate-source breakdown voltage	$V_{DS} = 0$ $-I_G = 1 \mu A$	25	-	V
$-I_{GSS}$	gate-source leakage current	$-V_{GS} = 15 V$ $V_{DS} = 0$	-	2	nA
		$-V_{GS} = 15 V$ $V_{DS} = 0$ $T_{amb} = 100 \text{ }^\circ\text{C}$	-	2	μA
I_{DSS}	drain-source current	$V_{GS} = 0$ $V_{DS} = 15 V$	2	20	mA
$-V_{GS}$	gate-source voltage	$I_D = 200 \mu A$ $V_{DS} = 15 V$	0.5	7.5	V
$-V_{(P)GS}$	gate-source cut-off voltage	$I_D = 2 nA$ $V_{DS} = 15 V$	-	8	V
$ y_{fs} $	transfer admittance	$V_{DS} = 15 V$ $V_{GS} = 0$ $f = 1 \text{ kHz}$	2	6.5	mS
$ y_{fs} $	transfer admittance	$V_{DS} = 15 V$ $V_{GS} = 0$ $f = 100 \text{ MHz}$	1.6	-	mS
$ y_{os} $	output admittance	$V_{DS} = 15 V$ $V_{GS} = 0$ $f = 1 \text{ kHz}$	-	50	μS
C_{iss}	input capacitance	$V_{DS} = 15 V$ $V_{GS} = 0$ $f = 1 \text{ MHz}$	-	8	pF
C_{rss}	feedback capacitance	$V_{DS} = 15 V$ $V_{GS} = 0$ $f = 1 \text{ MHz}$	-	4	pF

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PACKAGE OUTLINE

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