FIELD - EFFECT TRANSISTOR , SILICON , N CHANNEL

TRANSISTOR A EFFET DE CHAMP , SILICIUM , CANAL N

*2N 4117 , A
*2N 4118 , A
*2N 4119 , A

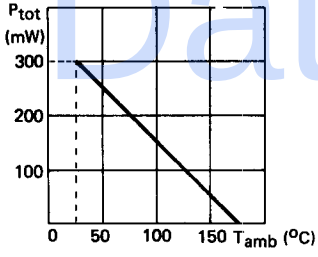
* Preferred device
Dispositif recommandé

Very high impedance input stages.
Electrometry

Etages d'entrée à très haute impédance.
Electrométrie.

I_{GSS}	1 pA max	2N 4117 A
	1 pA max	2N 4118 A
	1 pA max	2N 4119 A
I_{GSS}	10 pA max	2N 4117
	10 pA max	2N 4118
	10 pA max	2N 4119
I_{DSS}	30 - 90 µA	2N 4117 , A
	80 - 240 µA	2N 4118 , A
	200 - 600 µA	2N 4119 , A

Maximum power dissipation
Dissipation de puissance maximale



Case TO-72 — See outline drawing **CB-4** on last pages
Boîtier *Voir dessin coté CB-4 dernières pages*

Weight : 0,7 g
Masse :

Connection M is connected to case
La connexion M est reliée au boîtier

ABSOLUTE RATINGS (LIMITING VALUES)
VALEURS LIMITES ABSOLUES D'UTILISATION

T_{amb} = + 25 °C (Unless otherwise stated) *(Sauf indications contraires)*

Drain-source voltage *Tension drain-source*	V_{DS}	40	V
Gate-source voltage *Tension grille-source*	V_{GS}	− 40	V
Gate-drain voltage *Tension grille-drain*	V_{GD}	− 40	V
Drain current *Courant de drain*	I_D	50	mA
Gate current *Courant de grille*	I_G	50	mA
Total power dissipation *Dissipation totale de puissance*	P_{tot}	300	mW
Storage temperature min *Température de stockage* max	T_{stg}	− 65 + 175	°C
Operating ambient temperature min *Température ambiante de fonctionnement* max	T_{amb}	− 55 + 175	°C °C

STATIC CHARACTERISTICS
CARACTÉRISTIQUES STATIQUES

T_{amb} = 25 °C

(Unless otherwise stated)
(Sauf indications contraires)

	Test conditions *Conditions de mesure*			min	max	
Total gate leakage current *Courant de fuite total de grille*	V_{DS} = 0 V_{GS} = – 20 V	I_{GSS}	2N 4117 2N 4118 2N 4119		– 10 – 10 – 10	pA pA pA
	V_{DS} = 0 V_{GS} = – 20 V		2N 4117 A 2N 4118 A 2N 4119 A		– 1 – 1 – 1	pA pA pA
	V_{DS} = 0 V_{GS} = – 20 V T_{amb} = 150 °C		All types *Tous types*		– 2,5	nA
Gate source breakdown voltage *Tension de claquage grille source*	V_{DS} = 0 I_G = – 1 µA	$V_{(BR)GSS}$	All types *Tous types*	– 40		V
Drain current *Courant de drain*	V_{DS} = 10 V V_{GS} = 0	I_{DSS}	2N 4117, A 2N 4118, A 2N 4119, A	0,03 0,08 0,2	0,09 0,24 0,6	mA mA mA
Gate source cut-off voltage *Tension grille source de blocage*	V_{DS} = 10 V I_D = 1 nA	$V_{GS\ off}$	2N 4117, A 2N 4118, A 2N 4119, A	– 0,6 – 1 – 2	– 1,8 – 3 – 6	V V V

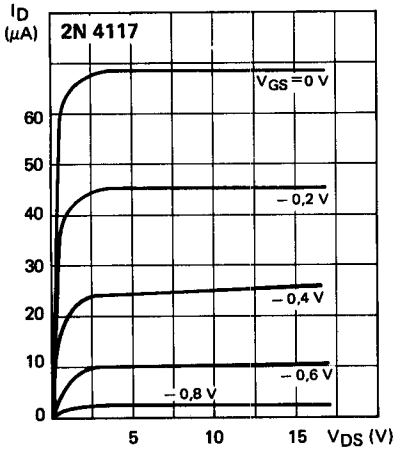
DYNAMIC CHARACTERISTICS (For small signals)
CARACTÉRISTIQUES DYNAMIQUES (Pour petits signaux)

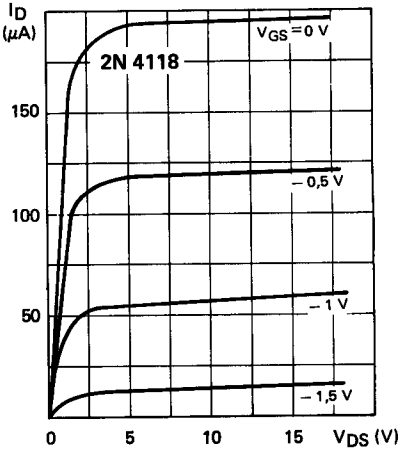
T_{amb} = 25 °C

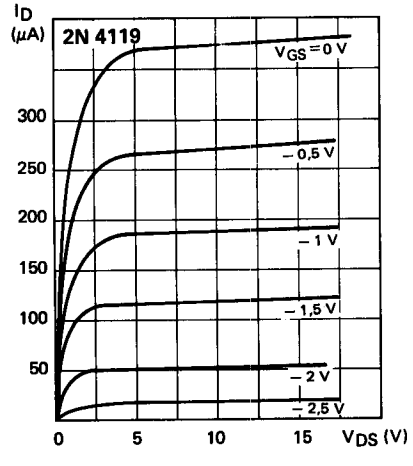
(Unless otherwise stated)
(Sauf indications contraires)

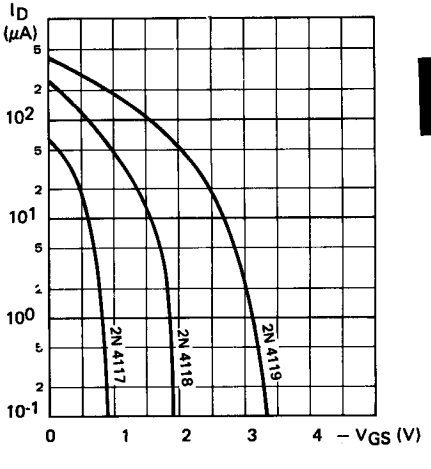
Input capacitance *Capacité d'entrée*	V_{DS} = 10 V V_{GS} = – 1 V f = 1 MHz	C_{11ss}	All types *Tous types*		3	pF
Reverse transfer capacitance *Capacité de transfert inverse*	V_{DS} = 10 V V_{GS} = – 1 V f = 1 MHz	C_{12ss}	All types *Tous types*		1,5	pF
Forward transfer admittance *Admittance de transfert direct*	V_{DS} = 10 V V_{GS} = 0 f = 1 KHz	$\lvert Y_{21s} \rvert$	2N 4117, A 2N 4118, A 2N 4119, A	70 80 100	210 250 330	µS µS µS
Output admittance *Admittance de sortie*	V_{DS} = 10 V V_{GS} = 0 f = 1KHz	$\lvert Y_{22s} \rvert$	2N 4117, A 2N 4118, A 2N 4119, A		3 5 10	µS µS µS
Forward transfer admittance *Admittance de transfert direct*	V_{DS} = 10 V V_{GS} = 0 f = 30 MHz	$R_e(Y_{21s})$	2N 4117, A 2N 4118, A 2N 4119, A	60 70 90		µS µS µS

STATIC CHARACTERISTICS
CARACTERISTIQUES STATIQUES

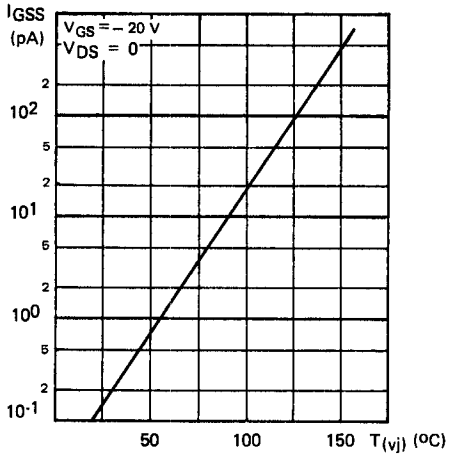


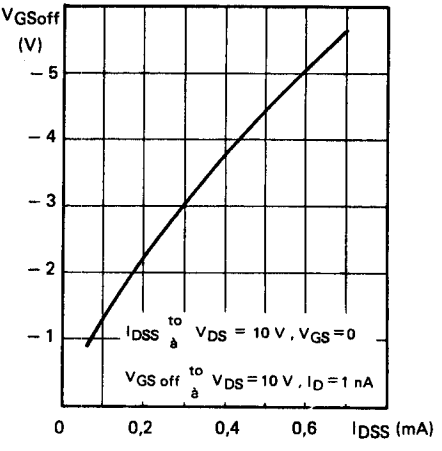




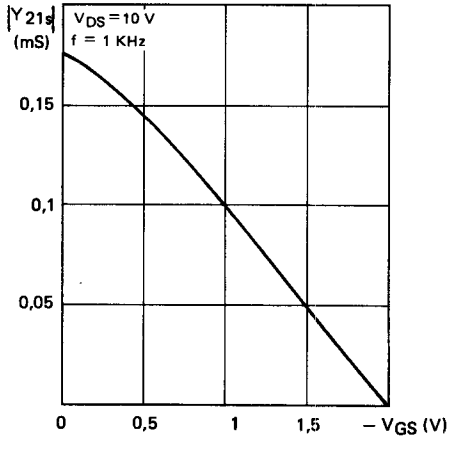


STATIC CHARACTERISTICS
CARACTERISTIQUES STATIQUES





DYNAMIC CHARACTERISTIC
CARACTERISTIQUES DYNAMIQUE



DYNAMIC CHARACTERISTICS
CARACTERISTIQUES DYNAMIQUES