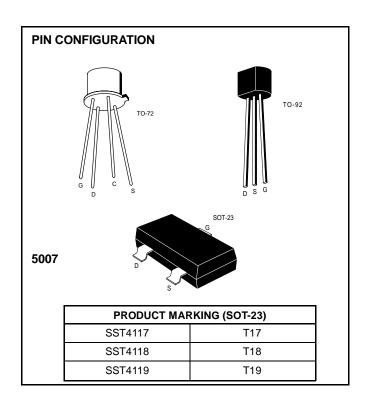


N-Channel JFET General Purpose Amplifier

2N4117 - 2N4119 / 2N4117A - 2N4119A PN4117 - PN4119 / PN4117A - PN4119A / SST4117 - SST4119



FEATURES

- Low Leakage
- Low Capacitance

ABSOLUTE MAXIMUM RATINGS

 $(T_A = 25^{\circ}C \text{ unless otherwise noted})$

Gate-Source or Gate-Drain Voltage	40V
Gate Current	
Storage Temperature Range	65°C to +200°C
Operating Temperature Range	55°C to +175°C
Lead Temperature (Soldering, 10sec)	+300°C
Power Dissipation	
Derate above 25°C	2.0mW/ ^o C

NOTE: Stresses above those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions above those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ORDERING INFORMATION

Part	Package	Temperature Range
2N4117-19/A	Hermetic TO-72	-55°C to +175°C
PN4117-19/A	Plastic TO-92	-55°C to +135°C
SST4117-19	Plastic SOT-23	-55°C to +135°C
X2N4117-19/A	Sorted Chips in Carriers	-55°C to +175°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

SYMBOL	DADAMETER	4117/A		4118/A		4119/A		LIMITO	TEST COMPITIONS
	PARAMETER		MAX	MIN	MAX	MIN	MAX	UNITS	TEST CONDITIONS
BV _{GSS}	Gate-Source Breakdown Voltage	-40		-40		-40		V	$I_G = -1\mu A,\ V_{DS} = 0$
I _{GSS}	Gate Reverse Current		-10		-10		-10	pA	
	A devices		-1		-1		-1	рA	$V_{GS} = -20V, V_{DS} = 0$
	A devices		-25		-25		-25	nA	$T_A = +150^{\circ}C$
			-2.5		-2.5		-2.5		TA = +150 C
V _{GS(off)}	Gate-Source Pinch-Off Voltage	-0.6	-1.8	-1	-3	-2	-6	V	V _{DS} = 10V, I _D = 1nA
I _{DSS}	Drain Current at Zero Gate Voltage (Note 1)	0.02	0.09	0.08	0.24	0.20	0.60	mA	V _{DS} = 10V, V _{GS} = 0
g fs	Common-Source Forward Transconductance (Note 1)	70	210	80	250	100	330	μS	V _{DS} = 10V, f = 1kHz
g fs	Common-Source Forward Transconductance (Note 2)	60		70		90			$V_{GS} = 0$, $f = 30MHz$
gos	Common-Source Output Conductance		3		5		10		V _{DS} = 10V, V _{GS} = 0, f = 1kHz
Ciss	Common-Source Input Capacitance (Note 2)		3		3		3	- pF	$V_{DS} = 10V$, $V_{GS} = 0$, $f = 1MHz$
C _{rss}	Common-Source Reverse Transfer Capacitance (Note 2)		1.5		1.5		1.5		$V_{DS} = 10V$, $V_{GS} = 0$, $f = 1MHz$

NOTES: 1. Pulse test: Pulse duration of 2ms used during test.

2. For design reference only, not 100% tested.