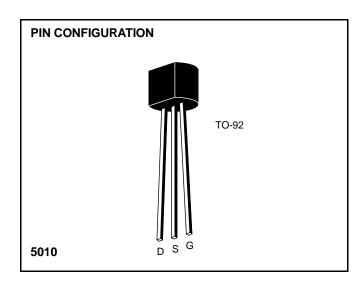
N-Channel JFET General Purpose Amplifier/Switch



2N5457 - 2N5459



ABSOLUTE MAXIMUM RATINGS

(T_A = 25°C unless otherwise noted)

Drain-Gate Voltage	
Drain-Source Voltage	25V
Continuous Forward Gate Current	
Storage Temperature Range	65° C to $+150^{\circ}$ C
Operating Temperature Range	-55° C to $+135^{\circ}$ C
Lead Temperature (Soldering, 10sec)	+300°C
Power Dissipation	
Derate above 25°C	2.82mW/°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		
2N5457-59	Plastic TO-92	-55°C to +135°C		
X2N5457-59	Sorted Chips in Carriers	-55°C to +135°C		

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

SYMBOL	PARAMETER		MIN	MAX	UNITS	TEST CONDITIONS
BV _{GSS}	Gate-Source Breakdown Voltage		-25		V	$I_{G} = -10\mu A, V_{DS} = 0$
1	Gate Reverse Current			-1.0	nA	$V_{GS} = -15V, V_{DS} = 0$
IGSS				-200		$V_{GS} = -15V, V_{DS} = 0, T_A = 100^{\circ}C$
	Gate-Source Cutoff Voltage	2N5457	-0.5	-6.0		V _{DS} = 15V, I _D = 10nA
V _{GS(off)}		2N5458	-1.0	-7.0	V	
		2N5459	-2.0	-8.0		
V _G S	Gate-Source Voltage	2N5457	2.5			$V_{DS} = 15V$, $I_D = 100\mu A$, Typical
		2N5458	3.5		V	$V_{DS} = 15V$, $I_D = 200\mu A$, Typical
		2N5459	4.5			$V_{DS} = 15V$, $I_D = 400\mu A$, Typical
I _{DSS}	Zero-Gate-Voltage Drain Current (Note 1)	2N5457	1.0	5.0		$V_{DS} = 15V, V_{GS} = 0$
		2N5458	2.0	9.0	mA	
		2N5459	4.0	16		
yfs	Forward Transfer Admittance	2N5457	1000	5000		$V_{DS} = 15V, V_{GS} = 0, f = 1kHz$
		2N5458	1500	5500	μS	
		2N5459	2000	6000		
yos	Output Admittance			50	μS	$V_{DS} = 15V$, $V_{GS} = 0$, $f = 1kHz$
Ciss	Input Capacitance (Note 2)			7.0	pF	$V_{DS} = 15V$, $V_{GS} = 0$, $f = 1MHz$
Crss	Reverse Transfer Capacitance (Note 2)			3.0	pF	V _{DS} = 15V, V _{GS} = 0, f = 1MHz
NF	Noise Figure (Note 2)			3.0	dB	$V_{DS} = 15V$, $V_{GS} = 0$, $R_G = 1MHz$, $BW = 1Hz$, $f = 1kHz$

NOTES: 1. Pulse test required. PW ≤630ms, duty cycle ≤10%.

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