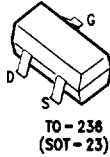
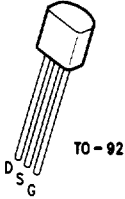




**2N5484  
2N5485  
2N5486**

**MMBF5484  
MMBF5485  
MMBF5486**



TL/G/10100-6

TL/G/10100-2

## N-Channel JFET Transistors for RF Amplifiers

### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Min	Max	Units
<b>OFF CHARACTERISTICS</b>				
$V_{(BR)GSS}$	Gate-Source Breakdown Voltage ( $I_G = -1.0 \mu\text{Adc}$ , $V_{DS} = 0$ )	-25		Vdc
$I_{GSS}$	Gate Reverse Current ( $V_{GS} = -20 \text{ Vdc}$ , $V_{DS} = 0$ ) ( $V_{GS} = -20 \text{ Vdc}$ , $V_{DS} = 0$ , $T_A = 100^\circ\text{C}$ )		-1.0 -0.2	nAdc $\mu\text{Adc}$
$V_{GS(off)}$	Gate Source Cutoff Voltage ( $V_{DS} = 15 \text{ Vdc}$ , $I_D = 10 \text{ nAdc}$ )			Vdc
	2N5484	-0.3	-3.0	
	2N5485	-1.0	-4.0	
	2N5486	-2.0	-6.0	
<b>ON CHARACTERISTICS</b>				
$I_{DSS}$	Zero-Gate-Voltage Drain Current ( $V_{DS} = 15 \text{ Vdc}$ , $V_{GS} = 0$ )			mAdc
	2N5484	1.0	5.0	
	2N5485	4.0	10	
	2N5486	8.0	20	
<b>SMALL-SIGNAL CHARACTERISTICS</b>				
$ y_{fs} $	Forward Transfer Admittance ( $V_{DS} = 15 \text{ Vdc}$ , $V_{GS} = 0$ , $f = 1.0 \text{ kHz}$ )			$\mu\text{mhos}$
	2N5484	3000	6000	
	2N5485	3500	7000	
	2N5486	4000	8000	
$\text{Re}(y_{is})$	Input Admittance ( $V_{DS} = 15 \text{ Vdc}$ , $V_{GS} = 0$ , $f = 100 \text{ MHz}$ ) ( $V_{DS} = 15 \text{ Vdc}$ , $V_{GS} = 0$ , $f = 400 \text{ MHz}$ )			$\mu\text{mhos}$
	2N5484		100	
	2N5485, 2N5486		1000	
$ y_{os} $	Output Admittance ( $V_{DS} = 15 \text{ Vdc}$ , $V_{GS} = 0$ , $f = 1.0 \text{ kHz}$ )			$\mu\text{mhos}$
	2N5484		50	
	2N5485		60	
	2N5486		75	

**N-Channel JFET Transistors for RF Amplifiers** (Continued)**Electrical Characteristics**  $T_A = 25^\circ\text{C}$  unless otherwise noted (Continued)

Symbol	Parameter	Min	Max	Units
<b>SMALL-SIGNAL CHARACTERISTICS</b> (Continued)				
$Re(y_{os})$	Output Transconductance ( $V_{DS} = 15\text{ Vdc}, V_{GS} = 0, f = 100\text{ MHz}$ ) ( $V_{DS} = 15\text{ Vdc}, V_{GS} = 0, f = 400\text{ MHz}$ )	2N5484 2N5485, 2N5486	75 100	$\mu\text{mhos}$
$Re(y_{fs})$	Forward Transconductance ( $V_{DS} = 15\text{ Vdc}, V_{GS} = 0, f = 100\text{ MHz}$ ) ( $V_{DS} = 15\text{ Vdc}, V_{GS} = 0, f = 400\text{ MHz}$ )	2N5484 2N5485 2N5486	2500 3000 3500	$\mu\text{mhos}$
$C_{iss}$	Input Capacitance ( $V_{DS} = 15\text{ Vdc}, V_{GS} = 0, f = 1.0\text{ MHz}$ )		5.0	pF
$C_{rss}$	Reverse Transfer Capacitance ( $V_{DS} = 15\text{ Vdc}, V_{GS} = 0, f = 1.0\text{ MHz}$ )		1.0	pF
$C_{oss}$	Output Capacitance ( $V_{DS} = 15\text{ Vdc}, V_{GS} = 0, f = 1.0\text{ MHz}$ )		2.0	pF
<b>FUNCTIONAL CHARACTERISTICS</b>				
NF	Noise Figure ( $V_{DS} = 15\text{ Vdc}, V_{GS} = 0, R_G = 1.0\text{ M}\Omega, f = 1.0\text{ kHz}$ ) ( $V_{DS} = 15\text{ Vdc}, I_D = 1.0\text{ mA}, R_G \approx 1.0\text{ k}\Omega, f = 100\text{ MHz}$ ) ( $V_{DS} = 15\text{ Vdc}, I_D = 4.0\text{ mA}, R_G \approx 1.0\text{ k}\Omega, f = 100\text{ MHz}$ ) ( $V_{DS} = 15\text{ Vdc}, I_D = 4.0\text{ mA}, R_G \approx 1.0\text{ k}\Omega, f = 400\text{ MHz}$ )	2N5484 2N5485, 2N5486 2N5485, 2N5486	2.5 3.0 2.0 4.0	dB
$G_{ps}$	Common Source Power Gain ( $V_{DS} = 15\text{ Vdc}, I_D = 1.0\text{ mA}, f = 100\text{ MHz}$ ) ( $V_{DS} = 15\text{ Vdc}, I_D = 4.0\text{ mA}, f = 100\text{ MHz}$ ) ( $V_{DS} = 15\text{ Vdc}, I_D = 4.0\text{ mA}, f = 400\text{ MHz}$ )	2N5484 2N5485, 2N5486 2N5485, 2N5486	16 18 10	25 30 20

Note 1: For characteristics curves, see Process 50.