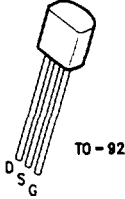


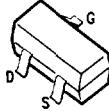


**2N5457  
2N5458  
2N5459**

**MMBF5457  
MMBF5458  
MMBF5459**



TO-92



TO-236  
(SOT-23)

TL/G/10100-6

TL/G/10100-2

### N-Channel JFET Transistor

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

Symbol	Parameter	Min	Typ	Max	Units
<b>OFF CHARACTERISTICS</b>					
$V_{(BR)GSS}$	Gate-Source Breakdown Voltage ( $I_G = -10 \mu\text{A}$ , $V_{DS} = 0$ )	-25			Vdc
$I_{GSS}$	Gate Reverse Current ( $V_{GS} = -15 \text{ Vdc}$ , $V_{DS} = 0$ ) ( $V_{GS} = -15 \text{ Vdc}$ , $V_{DS} = 0$ , $T_A = 100^\circ\text{C}$ )			-1.0 -200	nA
$V_{GS(off)}$	Gate Source Cutoff Voltage ( $V_{DS} = 15 \text{ Vdc}$ , $I_D = 10 \text{ nA}$ )				Vdc
$V_{GS}$	Gate Source Voltage ( $V_{DS} = 15 \text{ Vdc}$ , $I_D = 100 \mu\text{A}$ ) ( $V_{DS} = 15 \text{ Vdc}$ , $I_D = 200 \mu\text{A}$ ) ( $V_{DS} = 15 \text{ Vdc}$ , $I_D = 400 \mu\text{A}$ )				Vdc
<b>ON CHARACTERISTICS</b>					
$I_{DSS}$	Zero-Gate-Voltage Drain Current, (Note 1) ( $V_{DS} = 15 \text{ Vdc}$ , $V_{GS} = 0$ )				mA

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

Symbol	Parameter	Min	Typ	Max	Units
<b>SMALL-SIGNAL CHARACTERISTICS</b>					
$y_{fs}$	Forward Transfer Admittance Common Source, (Note 1) ( $V_{DS} = 15\text{ Vdc}$ , $V_{GS} = 0$ , $f = 1.0\text{ kHz}$ )	2N5457	1000	5000	$\mu\text{mhos}$
		2N5458	1500	5500	
		2N5459	2000	6000	
$y_{os}$	Output Admittance Common Source, (Note 1) ( $V_{DS} = 15\text{ Vdc}$ , $V_{GS} = 0$ , $f = 1.0\text{ kHz}$ )		10	50	$\mu\text{mhos}$
$C_{iss}$	Input Capacitance ( $V_{DS} = 15\text{ Vdc}$ , $V_{GS} = 0$ , $f = 1.0\text{ MHz}$ )		4.5	7.0	$\text{pF}$
$C_{rss}$	Reverse Transfer Capacitance ( $V_{DS} = 15\text{ Vdc}$ , $V_{GS} = 0$ , $f = 1.0\text{ MHz}$ )		1.5	3.0	$\text{pF}$

**Note 1:** Pulse Width  $\leq 630\text{ ms}$ , Duty Cycle  $\leq 10\%$ .

**Note 2:** For characteristics curves, see Process 55.