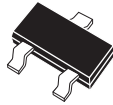


CMPF5484  
CMPF5485  
CMPF5486

N-CHANNEL JFET



SOT-23 CASE

**Central**<sup>TM</sup>  
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPF5484 Series types are surface mount, N-Channel JFET's designed for RF amplifier and mixer applications. These devices will operate well in the VHF/UHF frequency range.

**MARKING CODES:**

**CMPF5484: 6B**

**CMPF5485: 6B1**

**CMPF5486: 6H**

**MAXIMUM RATINGS:** ( $T_A=25^{\circ}\text{C}$ )

Gate-Drain Voltage  
Gate-Source Voltage  
Drain Current  
Gate Current  
Power Dissipation  
Operating and Storage  
Junction Temperature  
Thermal Resistance

SYMBOL		UNITS
$V_{GD}$	25	V
$V_{GS}$	25	V
$I_D$	30	mA
$I_G$	10	mA
$P_D$	350	mW
$T_J, T_{stg}$	-65 to +150	$^{\circ}\text{C}$
$\Theta_{JA}$	357	$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	CMPF5484		CMPF5485		CMPF5486		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
$I_{GSS}$	$V_{GS}=20\text{V}$		1.0		1.0		1.0	nA
$I_{GSS}$	$V_{GS}=20\text{V}, T_A=100^{\circ}\text{C}$		0.2		0.2		0.2	$\mu\text{A}$
$I_{DSS}$	$V_{DS}=15\text{V}$	1.0	5.0	4.0	10	8.0	20	mA
$BV_{GSS}$	$I_G=1.0\mu\text{A}$	25		25		25		V
$V_{GS(off)}$	$V_{DS}=15\text{V}, I_D=10\text{nA}$	0.3	3.0	0.5	4.0	2.0	6.0	V
$Y_{fs}$	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{KHz}$	3000	6000	3500	7000	4000	8000	$\mu\text{mhos}$
$Y_{os}$	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{KHz}$		50		60		75	$\mu\text{mhos}$
$C_{iss}$	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{MHz}$		5.0		5.0		5.0	pF
$C_{oss}$	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{MHz}$		2.0		2.0		2.0	pF
$C_{rss}$	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{MHz}$		1.0		1.0		1.0	pF
$R_{e(yis)}$	$V_{DS}=15\text{V}, V_{GS}=0, f=100\text{MHz}$		100		-		-	$\mu\text{mhos}$
$R_{e(yis)}$	$V_{DS}=15\text{V}, V_{GS}=0, f=400\text{MHz}$		-		1000		1000	$\mu\text{mhos}$
$R_{e(yos)}$	$V_{DS}=15\text{V}, V_{GS}=0, f=100\text{MHz}$		75		-		-	$\mu\text{mhos}$
$R_{e(yos)}$	$V_{DS}=15\text{V}, V_{GS}=0, f=400\text{MHz}$		-		100		100	$\mu\text{mhos}$
$R_{e(yis)}$	$V_{DS}=15\text{V}, V_{GS}=0, f=100\text{MHz}$	2500		-		-		$\mu\text{mhos}$
$R_{e(yis)}$	$V_{DS}=15\text{V}, V_{GS}=0, f=400\text{MHz}$	-		3000		3500		$\mu\text{mhos}$

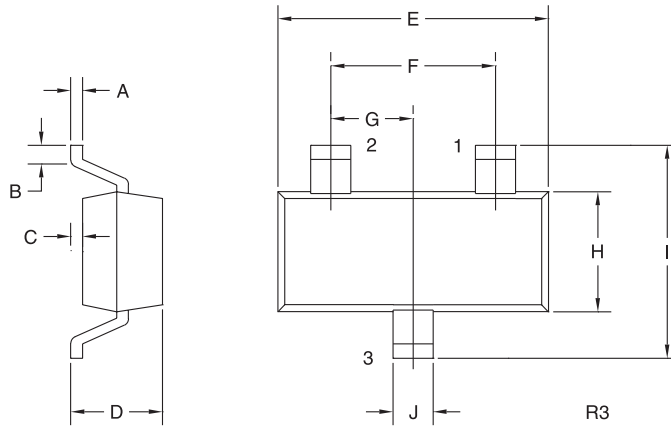
R4 (26-September 2002)

## N-CHANNEL JFET

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

SYMBOL	TEST CONDITIONS	CMPF5484		CMPF5485		CMPF5486		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
NF	$V_{DS}=15\text{V}$ , $V_{GS}=0$ , $R_G=1\text{M}\Omega$ , $f=1.0\text{KHz}$		2.5		2.5		2.5	dB
NF	$V_{DS}=15\text{V}$ , $I_D=1.0\text{mA}$ , $R_G=1\text{K}\Omega$ , $f=100\text{MHz}$		3.0		-			dB
NF	$V_{DS}=15\text{V}$ , $I_D=1.0\text{mA}$ , $R_G=1\text{K}\Omega$ , $f=200\text{MHz}$		4.0TYP		-			dB
NF	$V_{DS}=15\text{V}$ , $I_D=4.0\text{mA}$ , $R_G=1\text{K}\Omega$ , $f=100\text{MHz}$		-		2.0		2.0	dB
NF	$V_{DS}=15\text{V}$ , $I_D=4.0\text{mA}$ , $R_G=1\text{K}\Omega$ , $f=400\text{MHz}$		-		4.0		4.0	dB
$G_{PS}$	$V_{DS}=15\text{V}$ , $I_D=1.0\text{mA}$ , $f=100\text{MHz}$	16	25	-	-	-	-	dB
$G_{PS}$	$V_{DS}=15\text{V}$ , $I_D=1.0\text{mA}$ , $f=200\text{MHz}$		14 TYP					dB
$G_{PS}$	$V_{DS}=15\text{V}$ , $I_D=4.0\text{mA}$ , $f=100\text{MHz}$		-	18	30	18	30	dB
$G_{PS}$	$V_{DS}=15\text{V}$ , $I_D=4.0\text{mA}$ , $f=400\text{MHz}$	-	-	10	20	10	20	dB

## SOT-23 CASE - MECHANICAL OUTLINE



### LEAD CODE:

- 1) DRAIN
- 2) SOURCE
- 3) GATE

### MARKING CODE:

CMPF5484: 6B  
CMPF5485: 6B1  
CMPF5486: 6H

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

R4 (26-September 2002)