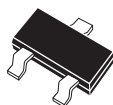


CMPF5484  
CMPF5485  
CMPF5486

N-CHANNEL JFET



SOT-23 CASE

# Central™

## 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<sub>A</sub>=25°C)

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

SYMBOL		UNITS
V <sub>GD</sub>	25	V
V <sub>GS</sub>	25	V
I <sub>D</sub>	30	mA
I <sub>G</sub>	10	mA
P <sub>D</sub>	350	mW
T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
θ <sub>JA</sub>	357	°C/W

### ELECTRICAL CHARACTERISTICS: (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	CMPF5484		CMPF5485		CMPF5486		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
I <sub>GSS</sub>	V <sub>GS</sub> =20V		1.0		1.0		1.0	nA
I <sub>GSS</sub>	V <sub>GS</sub> =20V, T <sub>A</sub> =100°C		0.2		0.2		0.2	μA
I <sub>DSS</sub>	V <sub>DS</sub> =15V	1.0	5.0	4.0	10	8.0	20	mA
BV <sub>GSS</sub>	I <sub>G</sub> =1.0μA	25		25		25		V
V <sub>GS(off)</sub>	V <sub>DS</sub> =15V, I <sub>D</sub> =10nA	0.3	3.0	0.5	4.0	2.0	6.0	V
Y <sub>fs</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0KHz	3000	6000	3500	7000	4000	8000	μmhos
Y <sub>os</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0KHz		50		60		75	μmhos
C <sub>iss</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0MHz		5.0		5.0		5.0	pF
C <sub>oss</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0MHz		2.0		2.0		2.0	pF
C <sub>rss</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=1.0MHz		1.0		1.0		1.0	pF
R <sub>e(yis)</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=100MHz		100		-		-	μmhos
R <sub>e(yis)</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=400MHz		-		1000		1000	μmhos
R <sub>e(yos)</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=100MHz		75		-		-	μmhos
R <sub>e(yos)</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=400MHz		-		100		100	μmhos
R <sub>e(yis)</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=100MHz	2500			-		-	μmhos
R <sub>e(yis)</sub>	V <sub>DS</sub> =15V, V <sub>GS</sub> =0, f=400MHz		-	3000		3500		μmhos

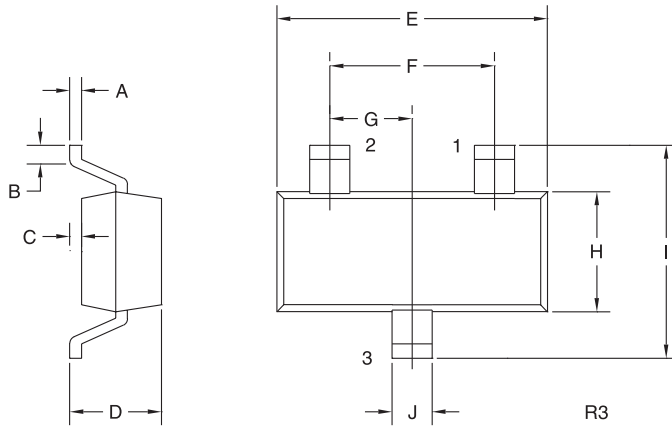
R4 (26-September 2002)

**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	$V_{DS}=15\text{V}$ , $I_D=1.0\text{mA}$ , $R_G=1\text{K}\Omega$ , $f=200\text{MHz}$		4.0 TYP		-			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 <sub>PS</sub>	$V_{DS}=15\text{V}$ , $I_D=1.0\text{mA}$ , $f=100\text{MHz}$	16	25	-	-	-	-	dB
G <sub>PS</sub>	$V_{DS}=15\text{V}$ , $I_D=1.0\text{mA}$ , $f=200\text{MHz}$		14 TYP					dB
G <sub>PS</sub>	$V_{DS}=15\text{V}$ , $I_D=4.0\text{mA}$ , $f=100\text{MHz}$		-	18	30	18	30	dB
G <sub>PS</sub>	$V_{DS}=15\text{V}$ , $I_D=4.0\text{mA}$ , $f=400\text{MHz}$		-	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)