



# THE DATASHEET OF CMPF5485 TR



CMPF5484  
CMPF5485  
CMPF5486

**SURFACE MOUNT SILICON  
N-CHANNEL JFET**



**SOT-23 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPF5484 Series types are surface mount, N-Channel JFETs 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**

$V_{GD}$  25  
 $V_{GS}$  25  
 $I_D$  30  
 $I_G$  10  
 $P_D$  350  
 $T_J, T_{stg}$  -65 to +150  
 $\theta_{JA}$  357

**UNITS**

V  
V  
mA  
mA  
mW  
 $^\circ\text{C}$   
 $^\circ\text{C/W}$

**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
$g_{FS}$	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{KHz}$	3.0	6.0	3.5	7.0	4.0	8.0	mS
$Y_{os}$	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{KHz}$	-	50	-	60	-	75	$\mu\text{S}$
$C_{iss}$	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{MHz}$	-	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	-	-	-	-	$\mu\text{S}$
$R_{e(yis)}$	$V_{DS}=15\text{V}, V_{GS}=0, f=400\text{MHz}$	-	-	-	1.0	-	1.0	mS
$R_{e(yos)}$	$V_{DS}=15\text{V}, V_{GS}=0, f=100\text{MHz}$	-	75	-	-	-	-	$\mu\text{S}$
$R_{e(yos)}$	$V_{DS}=15\text{V}, V_{GS}=0, f=400\text{MHz}$	-	-	-	100	-	100	$\mu\text{S}$
$R_{e(yfs)}$	$V_{DS}=15\text{V}, V_{GS}=0, f=100\text{MHz}$	2.5	-	-	-	-	-	mS
$R_{e(yfs)}$	$V_{DS}=15\text{V}, V_{GS}=0, f=400\text{MHz}$	-	-	3.0	-	3.5	-	mS

R6 (2-May 2014)

CMPF5484  
 CMPF5485  
 CMPF5486

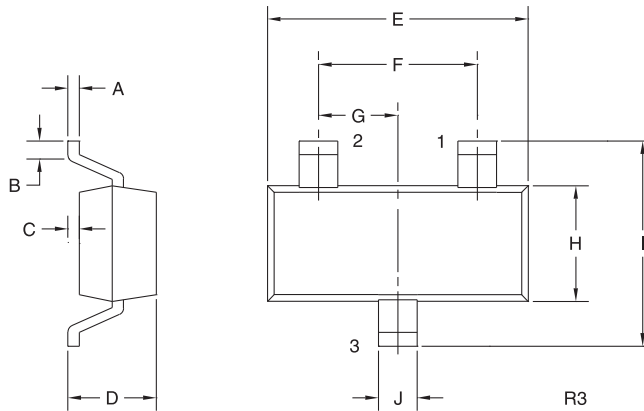


**SURFACE MOUNT SILICON  
 N-CHANNEL JFET**

**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 CODES:**

**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)

R6 (2-May 2014)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



---

### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

---

### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

---

### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

---

### CONTACT US

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

---

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- [⊖ View CMPF5485 TR on WIN SOURCE](#)
- [⊖ Central Semiconductor Corp Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management