

CMPF5484
CMPF5485
CMPF5486

**SURFACE MOUNT SILICON
N-CHANNEL JFET**



SOT-23 CASE



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°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
Θ_{JA} 357

UNITS

V
V
mA
mA
mW
°C
°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	CMPF5484		CMPF5485		CMPF5486		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
I _{GSS}	V _{GS} =20V	-	1.0	-	1.0	-	1.0	nA
I _{GSS}	V _{GS} =20V, T _A =100°C	-	0.2	-	0.2	-	0.2	μA
I _{DSS}	V _{DS} =15V	1.0	5.0	4.0	10	8.0	20	mA
BV _{GSS}	I _G =1.0μA	25	-	25	-	25	-	V
V _{GS(off)}	V _{DS} =15V, I _D =10nA	0.3	3.0	0.5	4.0	2.0	6.0	V
g _{FS}	V _{DS} =15V, V _{GS} =0, f=1.0KHz	3.0	6.0	3.5	7.0	4.0	8.0	mS
Y _{os}	V _{DS} =15V, V _{GS} =0, f=1.0KHz	-	50	-	60	-	75	μS
C _{iss}	V _{DS} =15V, V _{GS} =0, f=1.0MHz	-	5.0	-	5.0	-	5.0	pF
C _{oss}	V _{DS} =15V, V _{GS} =0, f=1.0MHz	-	2.0	-	2.0	-	2.0	pF
C _{rss}	V _{DS} =15V, V _{GS} =0, f=1.0MHz	-	1.0	-	1.0	-	1.0	pF
R _{e(yis)}	V _{DS} =15V, V _{GS} =0, f=100MHz	-	100	-	-	-	-	μS
R _{e(yis)}	V _{DS} =15V, V _{GS} =0, f=400MHz	-	-	-	1.0	-	1.0	mS
R _{e(yos)}	V _{DS} =15V, V _{GS} =0, f=100MHz	-	75	-	-	-	-	μS
R _{e(yos)}	V _{DS} =15V, V _{GS} =0, f=400MHz	-	-	-	100	-	100	μS
R _{e(yfs)}	V _{DS} =15V, V _{GS} =0, f=100MHz	2.5	-	-	-	-	-	mS
R _{e(yfs)}	V _{DS} =15V, V _{GS} =0, f=400MHz	-	-	3.0	-	3.5	-	mS

R6 (2-May 2014)

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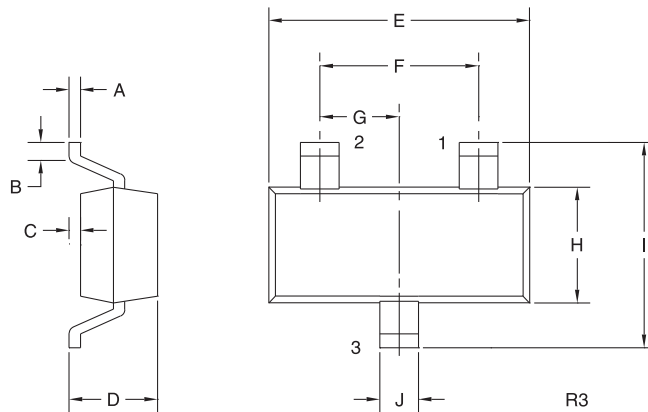
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N-CHANNEL JFET**



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
GPS	$V_{DS}=15\text{V}$, $I_D=1.0\text{mA}$, $f=100\text{MHz}$	16	25	-	-	-	-	dB
GPS	$V_{DS}=15\text{V}$, $I_D=1.0\text{mA}$, $f=200\text{MHz}$	-	14 TYP	-	-	-	-	dB
GPS	$V_{DS}=15\text{V}$, $I_D=4.0\text{mA}$, $f=100\text{MHz}$	-	-	18	30	18	30	dB
GPS	$V_{DS}=15\text{V}$, $I_D=4.0\text{mA}$, $f=400\text{MHz}$	-	-	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)

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 (2nd 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

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

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
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