

**CMPF4416A**  
**SURFACE MOUNT**  
**N-CHANNEL**  
**SILICON JFET**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPF4416A type is an epoxy molded N-Channel Silicon Junction Field Effect Transistor manufactured in an SOT-23 case, designed for VHF amplifier and mixer applications.

**MARKING CODE: 6BG**



**SOT-23 CASE**

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

	SYMBOL		UNITS
Drain-Source Voltage	$V_{DS}$	35	V
Gate-Source Voltage	$V_{GS}$	35	V
Gate Current	$I_G$	10	mA
Power Dissipation	$P_D$	350	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	357	$^\circ\text{C/W}$

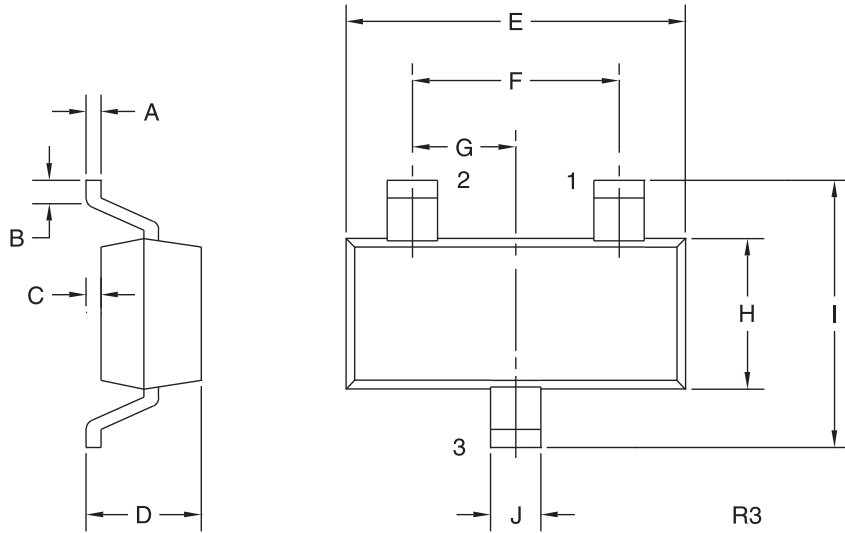
**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{GSS}$	$V_{GS}=20\text{V}$		1.0	nA
$I_{DSS}$	$V_{DS}=15\text{V}, V_{GS}=0$	5.0	15	mA
$BV_{GSS}$	$I_G=1.0\mu\text{A}$	35		V
$V_{GS(off)}$	$V_{DS}=15\text{V}, I_D=1.0\text{nA}$	2.5	6.0	V
$g_{FS}$	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{kHz}$	4.5	7.5	mS
$C_{iss}$	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{MHz}$		4.5	pF
$C_{rss}$	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{MHz}$		1.2	pF
$N_F$	$V_{DS}=15\text{V}, V_{GS}=0, f=1.0\text{kHz}, R_G=1.0\text{M}\Omega$		2.5	dB

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SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Drain
- 2) Source
- 3) Gate

MARKING CODE: 6BG

DIMENSIONS				
SYMBOL	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)

R5 (27-January 2010)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### 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

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### CONTACT US

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