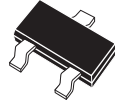


CMPF4391
CMPF4392
CMPF4393

N-CHANNEL JFET



SOT-23 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPF4391 series types are N-Channel Silicon Field Effect Transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for switching applications.

MARKING CODES:

CMPF4391: 6J
CMPF4392: 6K
CMPF4393: 6G

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

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

SYMBOL		UNITS
V_{GD}	40	V
V_{GS}	40	V
V_{DS}	40	V
I_G	50	mA
P_D	350	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
θ_{JA}	357	$^\circ\text{C/W}$

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

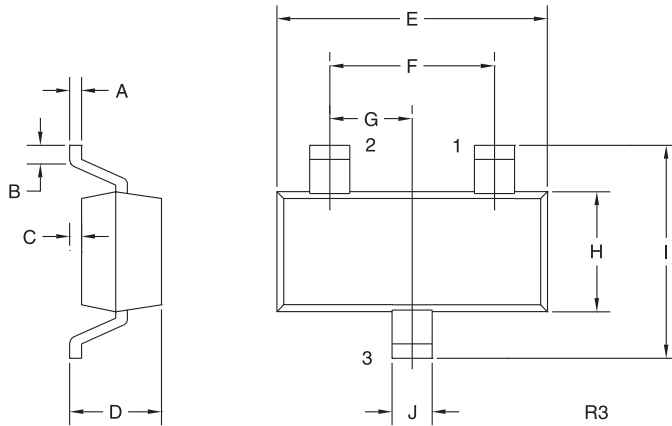
SYMBOL	TEST CONDITIONS	CMPF4391		CMPF4392		CMPF4393		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
I_{GSS}	$V_{GS}=20\text{V}$		0.1		0.1		0.1	nA
I_{GSS}	$V_{GS}=20\text{V}, T_A=100^\circ\text{C}$		0.2		0.2		0.2	μA
I_{DSS}	$V_{DS}=20\text{V}$	50	150	25	75	5.0	30	mA
$I_{D(OFF)}$	$V_{DS}=20\text{V}, V_{GS}=12\text{V}$		0.1		-		-	nA
$I_{D(OFF)}$	$V_{DS}=20\text{V}, V_{GS}=7.0\text{V}$		-		0.1		-	nA
$I_{D(OFF)}$	$V_{DS}=20\text{V}, V_{GS}=5.0\text{V}$		-		-		0.1	nA
$I_{D(OFF)}$	$V_{DS}=20\text{V}, V_{GS}=12\text{V}, T_A=100^\circ\text{C}$		0.2		-		-	μA
$I_{D(OFF)}$	$V_{DS}=20\text{V}, V_{GS}=7.0\text{V}, T_A=100^\circ\text{C}$		-		0.2		-	μA
$I_{D(OFF)}$	$V_{DS}=20\text{V}, V_{GS}=5.0\text{V}, T_A=100^\circ\text{C}$		-		-		0.2	μA
BV_{GSS}	$I_G=1.0\mu\text{A}$	40		40		40		V
$V_{GS(OFF)}$	$V_{DS}=20\text{V}, I_D=1.0\text{nA}$	4.0	10	2.0	5.0	0.5	3.0	V
$V_{GS(f)}$	$I_G=1.0\text{mA}$		1.0		1.0		1.0	V
$V_{DS(ON)}$	$I_D=12\text{mA}$		0.4		-		-	V
$V_{DS(ON)}$	$I_D=6.0\text{mA}$		-		0.4		-	V
$V_{DS(ON)}$	$I_D=3.0\text{mA}$		-		-		0.4	V
$r_{DS(ON)}$	$I_D=1.0\text{mA}, V_{GS}=0$		30		60		100	Ω
$r_{ds(ON)}$	$V_{GS}=0, I_D=0, f=1.0\text{kHz}$		30		60		100	Ω
C_{iss}	$V_{DS}=20\text{V}, V_{GS}=0, f=1.0\text{MHz}$		14		14		14	pF

N-CHANNEL JFET

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

SYMBOL	TEST CONDITIONS	CMPF4391		CMPF4392		CMPF4393		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
C_{rss}	$V_{GS}=12V, V_{DS}=0, f=1.0\text{MHz}$		3.5	-	-	-	-	pF
C_{rss}	$V_{GS}=7.0V, V_{DS}=0, f=1.0\text{MHz}$		-	3.5	-	-	-	pF
C_{rss}	$V_{GS}=5.0V, V_{DS}=0, f=1.0\text{MHz}$		-	-	-	3.5	-	pF
t_{ON}	$I_{D(ON)}=12\text{mA}$		15	-	-	-	-	ns
t_{ON}	$I_{D(ON)}=6.0\text{mA}$		-	15	-	-	-	ns
t_{ON}	$I_{D(ON)}=3.0\text{mA}$		-	-	-	15	-	ns
t_{OFF}	$V_{GS(OFF)}=12V$		20	-	-	-	-	ns
t_{OFF}	$V_{GS(OFF)}=7.0V$	-	-	35	-	-	-	ns
t_{OFF}	$V_{GS(OFF)}=5.0V$	-	-	-	-	50	-	ns

SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODES:

- CMPF4391: 6J
- CMPF4392: 6K
- CMPF4393: 6G

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)