2N4091
2N4092
2N4093

SILICON
N-CHANNEL JFETS

TO-18 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N4091 series devices are N-Channel silicon JFETs designed for switching applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C unless otherwise noted)

	SYMBOL		UNITS
Gate-Drain Voltage	V_{GD}	40	V
Gate-Source Voltage	V_{GS}	40	V
Drain-Source Voltage	V_{DS}	40	V
Gate Current	I_G	10	mA
Power Dissipation (T_C=25°C)	P_D	1.8	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +175	°C

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

		2N4091		2N4092		2N4093		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
I_{DSS}	V_{GS}=20V, V_{GS}=0	30	-	15	-	8.0	-	mA
I_{SGO}	V_{SG}=20V	-	0.2	-	0.2	-	0.2	nA
I_{DGO}	V_{DG}=20V	-	0.2	-	0.2	-	0.2	nA
$I_{D(OFF)}$	V_{DS}=20V, V_{GS}=12V	-	0.2	-	-	-	-	nA
$I_{D(OFF)}$	V_{DS}=20V, V_{GS}=8.0V	-	-	-	0.2	-	-	nA
$I_{D(OFF)}$	V_{DS}=20V, V_{GS}=6.0V	-	-	-	-	-	0.2	nA
BV_{GSS}	I_G=1.0μA	40	-	40		40	-	V
BV_{DGO}	I_D=1.0μA	40	-	40		40	-	V
$V_{GS(OFF)}$	V_{DS}=20V, I_D=1.0nA	5.0	10	2.0	7.0	1.0	5.0	V
$V_{DS(ON)}$	I_D=6.6mA, V_{GS}=0	-	0.2	-	-	-	-	V
$V_{DS(ON)}$	I_D=4.0mA, V_{GS}=0	-	-	-	0.2	-	-	V
$V_{DS(ON)}$	I_D=2.5mA, V_{GS}=0	-	-	-	-	-	0.2	V
$r_{DS(ON)}$	I_D=1.0mA, V_{GS}=0	-	30	-	50	-	80	Ω
$r_{ds(on)}$	V_{GS}=0, I_D=0, f=1.0kHz	-	30	-	50	-	80	Ω
C_{iss}	V_{DS}=20V, V_{GS}=0, f=1.0MHz	-	16	-	16	-	16	pF
C_{rss}	V_{DS}=0, V_{GS}=20V, f=1.0MHz	-	5.0	-	5.0	-	5.0	pF
t_{on}	$I_{D(ON)}$=6.6mA	-	25	-	-	-	-	ns
t_{on}	$I_{D(ON)}$=4.0mA	-	-	-	35	-	-	ns
t_{on}	$I_{D(ON)}$=2.5mA	-	-	-	-	-	60	ns
t_{off}	$V_{GS(OFF)}$=12V	-	40	-	-	-	-	ns
t_{off}	$V_{GS(OFF)}$=8.0V	-	-	-	60	-	-	ns
t_{off}	$V_{GS(OFF)}$=6.0V	-	-	-	-	-	80	ns

R0 (23-April 2019)

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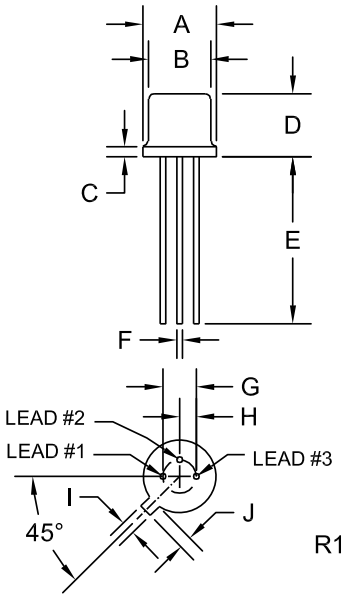
TO-18 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.209	0.230	5.31	5.84
B (DIA)	0.178	0.195	4.52	4.95
C	-	0.030	-	0.76
D	0.170	0.210	4.32	5.33
E	0.500	-	12.70	-
F (DIA)	0.016	0.019	0.41	0.48
G (DIA)	0.100		2.54	
H	0.050		1.27	
I	0.036	0.046	0.91	1.17
J	0.028	0.048	0.71	1.22

TO-18 (REV: R1)

LEAD CODE:
1) Source
2) Drain
3) Gate

MARKING: FULL PART NUMBER

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 (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

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

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