

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

J174

J175

J176

J177

P CHANNEL JUNCTION FET

JEDEC TO-92 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR J174 Series types are Silicon P Channel Junction Field Effect Transistors designed for switching applications.

MAXIMUM RATINGS($T_A=25^\circ\text{C}$ unless otherwise noted)

	SYMBOL		UNIT
Gate-Drain Voltage	V_{GD}	30	V
Gate-Source Voltage	V_{GS}	30	V
Gate Current	I_G	50	mA
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 TO +150	$^\circ\text{C}$

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

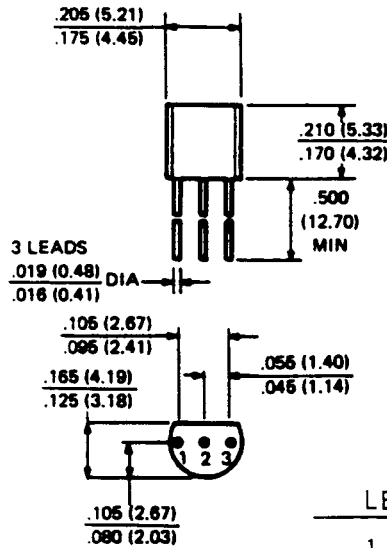
SYMBOL	TEST CONDITIONS	J174		J175		J176		J177		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
I_{GSS}	$V_{GS}=20V$		1.0		1.0		1.0		1.0	nA
I_{DSS}	$V_{DS}=15V$	20	100	7	60	2	25	1.5	20	mA
BV_{GSS}	$I_G=1.0\mu A$	30		30		30		30		V
$V_{GS(OFF)}$	$V_{DS}=15V, I_D=10nA$	5	10	3	6	1	4	0.8	2.25	V
$r_{DS(ON)}$	$V_{DS}=0.1V$		85		125		250		300	Ω
$I_D(OFF)$	$V_{GS}=10V, V_{DS}=15V$		1.0		1.0		1.0		1.0	nA
$C_{dg(OFF)}$	$V_{GS}=10V, V_{DS}=0, f=1.0MHz$	5.5 TYP		5.5 TYP		5.5 TYP		5.5 TYP		pF
$C_{sg(OFF)}$	$V_{GS}=10V, V_{DS}=0, f=1.0MHz$	5.5 TYP		5.5 TYP		5.5 TYP		5.5 TYP		pF
$C_{dg(ON)}$	$V_{GS}=0, V_{DS}=0, f=1.0MHz$	40 TYP		40 TYP		40 TYP		40 TYP		pF
$C_{sg(ON)}$	$V_{GS}=0, V_{DS}=0, f=1.0MHz$	40 TYP		40 TYP		40 TYP		40 TYP		pF
$t_d(ON)$	*	2.0 TYP		5.0 TYP		15 TYP		20 TYP		ns
t_r	*	5.0 TYP		10 TYP		20 TYP		25 TYP		ns
$t_d(OFF)$	*	5.0 TYP		10 TYP		15 TYP		20 TYP		ns
t_f	*	10 TYP		20 TYP		20 TYP		25 TYP		ns

***TEST CONDITIONS:**

J174	$V_{DD}=10V, V_{GS(ON)}=0, R_L=560\Omega, V_{GS(OFF)}=12V$
J175	$V_{DD}=6.0V, V_{GS(ON)}=0, R_L=12k\Omega, V_{GS(OFF)}=8.0V$
J176	$V_{DD}=6.0V, V_{GS(ON)}=0, R_L=5.6k\Omega, V_{GS(OFF)}=6.0V$
J177	$V_{DD}=6.0V, V_{GS(ON)}=0, R_L=10k\Omega, V_{GS(OFF)}=3.0V$

SEE REVERSE FOR OUTLINE DRAWING

OUTLINE DRAWING



LEAD CODE

1. DRAIN
2. GATE
3. SOURCE

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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

Corporate Headquarters & Customer Support Team

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Worldwide Distributors:
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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



Product End of Life Notification

PDN ID:	PDN01033 Rev:001
Notification Date:	5/25/23
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

<https://www.centrasemi.com>

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. Orders can only be accepted for products with available inventory on hand.

You may have purchased one or more of the products listed. Please do not hesitate to contact your local Central Semiconductor sales representative with any questions or needs you may have. Central regrets any inconvenience this may cause.

Sincerely,

Central Semiconductor Corp.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.



Product End of Life Notification

<https://www.centrasemi.com>

PDN ID:	PDN01033 Rev:001
Notification Date:	5/25/23
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Summary:N-Channel JFETs in the TO-92 package are discontinued and now classified as End of Life (EOL). Rev:001 of PDN#01033, May 25, 2023, issued to remove part number J112 to address market demand; J112 is now an active device.

Although Central Semiconductor makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Portfolio Management. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.**

<u>Central Part Number</u>	<u>Suggested Replacement</u>
J110	N/A
J175	N/A
J203-18	N/A
J112	Item J112 removed from PDN; device now active.

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. If you would like assistance, please visit <https://my.centrasemi.com/submit-inquiry?type=ER> to submit an online inquiry.

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