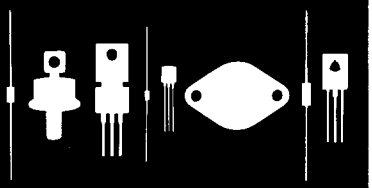
Central
Semiconductor Corp.
145 Adams Avenue
Hauppauge, New York 11788



2N3646 2N5772 PN3646

JEDEC TO-106 JEDEC TO-92

NPN SILICON SWITCHING TRANSISTORS

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N/PN3646, 2N5772 Series types are Silicon PNP Transistors designed for ultra high speed switching applications.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL	2N3646	2N5772 PN3646	UNIT
Collector-Base Voltage	V_{CBO}	40	40	V
Collector-Emitter Voltage	V_{CES}	40	40	V
Collector-Emitter Voltage	V_{CEO}	15	15	V
Emitter-Base Voltage	V_{EBO}	5.0	5.0	V
Collector Current	I_C	200	200	mA
Power Dissipation	P_D	200	625	mW
Operating Dissipation Junction Temperature	T_J, T_{stg}	-65 TO +150		°C

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CES}	V_{CE}=20V		0.5	μA
I_{CES}	V_{CE}=20V, T_A=65°C		3.0	μA
BV_{CBO}	I_C=100μA	40		V
BV_{CES}	I_C=10μA	40		V
BV_{CEO}	I_C=10mA	15		V
BV_{EBO}	I_E=100μA	5.0		V
$V_{CE(SAT)}$	I_C=30mA, I_B=3.0mA		0.2	V
$V_{CE(SAT)}$	I_C=100mA, I_B=10mA		0.28	V
$V_{CE(SAT)}$	I_C=300mA, I_B=30mA		0.5	V
$V_{CE(SAT)}$	I_C=30mA, I_B=3.0mA, T_A=65°C		0.3	V
$V_{BE(SAT)}$	I_C=30mA, I_B=3.0mA	0.75	0.95	V
$V_{BE(SAT)}$	I_C=100mA, I_B=10mA		1.2	V
$V_{BE(SAT)}$	I_C=300mA, I_B=30mA		1.7	V
h_{FE}	V_{CE}=0.4V, I_C=30mA	30	120	
h_{FE}	V_{CE}=0.5V, I_C=100mA	25		
h_{FE}	V_{CE}=1.0V, I_C=300mA	15		
f_T	V_{CE}=10V, I_C=30mA, f=100MHz	350		MHz
C_{ob}	V_{CB}=5.0V, I_E=0, f=1.0MHz		5.0	pF
C_{ib}	V_{BE}=0.5V, I_C=0, f=1.0MHz		8.0	pF
t_{on}	V_{CC}=10V, I_C=300mA, I_{B1}=30mA		18	ns
toff	V_{CC}=10V, I_C=300mA, I_{B1}=I_{B2}=30mA		28	ns
τ_s	V_{CC}=10V, I_C=I_{B1}=I_{B2}=10mA		18	ns

145 Adams Avenue, Hauppauge, NY 11788 USA
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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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www.centralsemi.com/wwreps

Worldwide Distributors:
www.centralsemi.com/wwdistributors

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.centralsemi.com/terms

http://www.centralsemi.com

Product End of Life Notification

PDN ID:	PDN01177
Notification Date:	4/23/21
Last Buy Date:	10/23/21
Last Shipment Date	4/23/22

Summary:The CP246 wafer process is discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. 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 Management Process. 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.**

Central Part Number	Suggested Replacement
CMPT3646 TR	N/A
CP246-PN3646-WN	N/A
PN3646	N/A
PN3646 APM	N/A
PN3646 TRE	N/A
PN3646-18	N/A
PN3646-5	N/A

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. Please email your requests to engineering@centralsemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. 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.

http://www.centralsemi.com

Product End of Life Notification

PDN ID:	PDN01064
Notification Date:	2/01/17
Last Buy Date:	8/01/17
Last Shipment Date	2/01/18

Summary:All transistors manufactured in the TO-106 package are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various 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 Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

Central Part Number	Replacement
CEN363	N/A
EN2222A	N/A
EN2907A	N/A
TEC301-303	N/A
TEC304	N/A
2N3563	N/A
2N3564	N/A
2N3565	N/A
2N3640	N/A
2N3646	N/A
2N3690	N/A
2N4250	N/A
2N4250A	N/A
2N4916	N/A
2N5134	N/A
2N5139	N/A
2N5143	N/A

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. Please email your requests to engineering@centralsemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. 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.