2N6420
2N6421
2N6422
2N6423

SILICON
PNP POWER TRANSISTORS

TO-66 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6420 series devices are silicon PNP power transistors designed for high speed switching and high voltage amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_C=25°C)	**SYMBOL**	**2N6420**	**2N6421**	**2N6422 2N6423**	**UNITS**
Collector-Base Voltage	V_{CBO}	250	375	500	V
Collector-Emitter Voltage	V_{CEO}	175	250	300	V
Emitter-Base Voltage	V_{EBO}	6.0	6.0	6.0	V
Continuous Collector Current	I_C	1.0	2.0	2.0	A
Peak Collector Current	I_{CM}		5.0		A
Continuous Base Current	I_B		1.0		A
Power Dissipation	P_D		35		W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +200		°C
Thermal Resistance	Θ_{JC}		5.0		°C/W

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

SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CEV}	V_{CE}=225V, V_{BE}=1.5V (2N6420)		1.0	mA
I_{CEV}	V_{CE}=340V, V_{BE}=1.5V (2N6421)		1.0	mA
I_{CEV}	V_{CE}=450V, V_{BE}=1.5V (2N6422)		1.0	mA
I_{CEV}	V_{CE}=450V, V_{BE}=1.5V (2N6423)		2.0	mA
I_{CEV}	V_{CE}=225V, V_{BE}=1.5V, T_C=150°C (2N6420)		3.0	mA
I_{CEV}	V_{CE}=300V, V_{BE}=1.5V, T_C=150°C (2N6421)		3.0	mA
I_{CEV}	V_{CE}=300V, V_{BE}=1.5V, T_C=150°C (2N6422)		3.0	mA
I_{CEV}	V_{CE}=300V, V_{BE}=1.5V, T_C=150°C (2N6423)		5.0	mA
I_{CEO}	V_{CE}=150V (2N6420)		10	mA
I_{CEO}	V_{CE}=150V (2N6421, 2N6422, 2N6423)		5.0	mA
I_{EBO}	V_{EB}=6.0V (2N6420)		5.0	mA
I_{EBO}	V_{EB}=6.0V (2N6421, 2N6422, 2N6423)		0.5	mA
BV_{CEO}	I_C=50mA, (2N6420)	175		V
BV_{CEO}	I_C=50mA, (2N6421)	250		V
BV_{CEO}	I_C=50mA, (2N6422, 2N6423)	300		V
$V_{CE(SAT)}$	I_C=1.0A, I_B=125mA (2N6420 thru 2N6422)		0.75	V
$V_{CE(SAT)}$	I_C=750mA, I_B=75mA (2N6423)		1.0	V
$V_{BE(SAT)}$	I_C=1.0A, I_B=100mA (2N6420 thru 2N6422)		1.4	V
$V_{BE(SAT)}$	I_C=750mA, I_B=75mA (2N6423)		1.8	V
h_{FE}	V_{CE}=10V, I_C=100mA	40		
h_{FE}	V_{CE}=10V, I_C=500mA (2N6420)	40	200	

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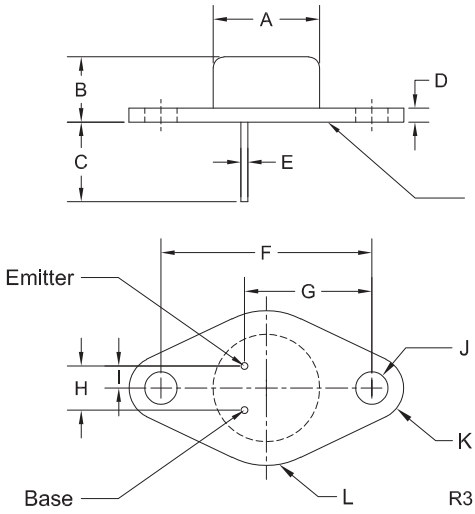
ELECTRICAL CHARACTERISTICS - Continued: (T_C=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
h_{FE}	V_{CE}=2.0V, I_C=750mA (2N6423)	10	100	
h_{FE}	V_{CE}=2.0V, I_C=1.0A (2N6421, 2N6422)	8.0	80	
h_{FE}	V_{CE}=10V, I_C=1.0A (2N6420)	10		
h_{fe}	V_{CE}=30V, I_C=100mA, f=1.0kHz	25	350	
f_T	V_{CE}=10V, I_C=200mA, f=5.0MHz (2N6420,21,22)	10		MHz
f_T	V_{CE}=10V, I_C=200mA, f=5.0MHz (2N6423)	15		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		120	pF
t_r	V_{CC}=200V, I_C=1.0A, I_{B1}=100mA, R_L=200Ω (2N6420, 2N6421, 2N6422)		3.0	μs
t_r	V_{CC}=200V, I_C=750mA, I_{B1}=75mA, R_L=267Ω (2N6423)		5.0	μs
t_s	V_{CC}=200V, I_C=1.0A, I_{B1}=I_{B2}=100mA (2N6420, 2N6421, 2N6422)		4.0	μs
t_s	V_{CC}=200V, I_C=750mA, I_{B1}=I_{B2}=75mA (2N6423)		6.0	μs
t_f	V_{CC}=200V, I_C=1.0A, I_{B1}=I_{B2}=100mA (2N6420, 2N6421, 2N6422)		3.0	μs
t_f	V_{CC}=200V, I_C=750mA, I_{B1}=I_{B2}=75mA (2N6423)		3.0	μs
$I_{S/b}$	V_{CE}=100V	150		mA

TO-66 CASE - MECHANICAL OUTLINE



Seating Plane:
The seating plane must be within 0.001" concave to 0.004" convex within 0.600" diameter from the center of the device.

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.470	0.500	11.94	12.70
B	0.250	0.340	6.35	8.64
C	0.360	-	9.14	-
D	0.050	0.075	1.27	1.91
E (DIA)	0.028	0.034	0.71	0.86
F	0.956	0.964	24.28	24.48
G	0.570	0.590	14.48	14.99
H	0.190	0.210	4.83	5.33
I	0.093	0.107	2.36	2.72
J (DIA)	0.142	0.152	3.61	3.86
K (RAD)	0.141		3.58	
L (RAD)	0.345		8.76	

TO-66 (REV:R3)

MARKING:
FULL PART NUMBER

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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/wwdistributors

http://www.centralsemi.com

Product End of Life Notification

PDN ID:	PDN01134
Notification Date:	8/27/19
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. We are unable to accept any further orders for these products **unless** we have 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.

http://www.centralsemi.com

Product End of Life Notification

PDN ID:	PDN01134
Notification Date:	8/27/19
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Summary:The 2N6422 power transistor 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.

Central Part Number	Replacement
2N6422	N/A, Stock Only

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.