#### 2N3740 2N3740A 2N3741 2N3741A

# SILICON PNP POWER TRANSISTORS



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## **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 2N3740 series devices are silicon PNP power transistors manufactured by the epitaxial base process designed for power amplifier and medium speed switching applications.

MARKING: FULL PART NUMBER



TO-66 CASE		2N3740	2N3741	
MAXIMUM RATINGS: (T <sub>C</sub> =25°C)	SYMBOL	2N3740A	2N3741A	UNITS
Collector-Base Voltage	$V_{CBO}$	60	80	V
Collector-Emitter Voltage	VCEO	60	80	V
Emitter-Base Voltage	VEBO	7	.0	V
Continuous Collector Current	ĪC	4	.0	Α
Peak Collector Current	ICM	1	0	Α
Continuous Base Current	ΙΒ	2	.0	Α
Power Dissipation	$P_{D}^{-}$	2	5	W
Operating and Storage Junction Temperature	$T_J$ , $T_{stg}$	-65 to	+200	°C

	. 0 3kg			
ELECTRICA SYMBOL	AL CHARACTERISTICS: (T <sub>C</sub> =25°C unless otherwise not TEST CONDITIONS	ted) MIN	MAX	UNITS
ICEV	V <sub>CE</sub> =Rated V <sub>CEO</sub> , V <sub>BE</sub> =1.5V (2N3740, 2N3741)		100	μA
ICEV	V <sub>CF</sub> =Rated V <sub>CFO</sub> , V <sub>BF</sub> =1.5V (2N3740A, 2N3741A)		100	nA
ICEV	V <sub>CE</sub> =40V, V <sub>BE</sub> =1.5V, T <sub>C</sub> =150°C (2N3740)		1.0	mA
ICEV	V <sub>CE</sub> =40V, V <sub>BE</sub> =1.5V, T <sub>C</sub> =150°C (2N3740A)		0.5	mA
ICEV	V <sub>CE</sub> =60V, V <sub>BE</sub> =1.5V, T <sub>C</sub> =150°C (2N3741)	1.0	mA	
ICEV	V <sub>CE</sub> =60V, V <sub>BE</sub> =1.5V, T <sub>C</sub> =150°C (2N3741A)	0.5	mA	
I <sub>CBO</sub>	V <sub>CB</sub> =Rated V <sub>CBO</sub> (2N3740, 2N3741)	100	μΑ	
I <sub>CBO</sub>	V <sub>CB</sub> =Rated V <sub>CBO</sub> (2N3740A, 2N3741A)	100	nA	
ICEO	V <sub>CE</sub> =40V (2N3740)	1.0	mA	
ICEO	V <sub>CE</sub> =40V (2N3740A)		1.0	μΑ
ICEO	V <sub>CE</sub> =60V (2N3741)		1.0	mA
ICEO	V <sub>CE</sub> =60V (2N3741A)	1.0	μΑ	
I <sub>EBO</sub>	V <sub>EB</sub> =7.0V (2N3740, 2N3741)		0.5	mA
IEBO	V <sub>EB</sub> =7.0V (2N3740A, 2N3741A)		100	nA
BVCEO	I <sub>C</sub> =100mA (2N3740, 2N3740A)	60		V
	I <sub>C</sub> =100mA (2N3741, 2N3741A)	80		V
VCE(SAT)	I <sub>C</sub> =1.0A, I <sub>B</sub> =125mA		0.6	V
V <sub>BE</sub> (ON)	$V_{CE}$ =1.0V, $I_{C}$ =250mA		1.0	V
h <sub>FE</sub> `	$V_{CE}=1.0V, I_{C}=100mA$	40		
hFE	V <sub>CE</sub> =1.0V, I <sub>C</sub> =250mA	30	200	
hFE	$V_{CE}$ =1.0V, $I_{C}$ =500mA	20		
hFE	$V_{CE}=1.0V, I_{C}=1.0A$	10		
h <sub>fe</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =50mA, f=1.0kHz	25		
f <sub>T</sub>	$V_{CE}$ =10V, $I_{C}$ =100mA, f=1.0MHz	4.0		MHz
$C_{ob}$	$V_{CB}$ =10V, $I_{E}$ =0, f=100kHz		100	pF

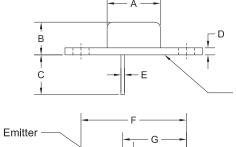
R2 (2-September 2014)

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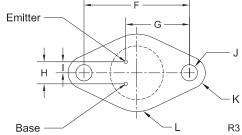
# SILICON PNP POWER TRANSISTORS



## **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.



MARKING: FULL PART NUMBER

DIMENSIONS								
	INC	HES	MILLIMETERS					
SYMBOL	MIN	MAX	MIN	MAX				
A (DIA)	0.470	0.500	11.94	12.70				
В	0.250	0.340	6.35	8.64				
С	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				
Н	0.190	0.210	4.83	5.33				
	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)



### **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 (2<sup>nd</sup> 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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