

2N3740 2N3740A  
2N3741 2N3741A

**SILICON  
PNP POWER TRANSISTORS**



**TO-66 CASE**

**MAXIMUM RATINGS:** ( $T_C=25^\circ\text{C}$ )

Collector-Base Voltage  
Collector-Emitter Voltage  
Emitter-Base Voltage  
Continuous Collector Current  
Peak Collector Current  
Continuous Base Current  
Power Dissipation  
Operating and Storage Junction Temperature

SYMBOL	2N3740	2N3741	UNITS
	2N3740A	2N3741A	
$V_{CBO}$	60	80	V
$V_{CEO}$	60	80	V
$V_{EBO}$		7.0	V
$I_C$		4.0	A
$I_{CM}$		10	A
$I_B$		2.0	A
$P_D$		25	W
$T_J, T_{stg}$		-65 to +200	$^\circ\text{C}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CEV}$	$V_{CE}=\text{Rated } V_{CEO}, V_{BE}=1.5\text{V}$ (2N3740, 2N3741)		100	$\mu\text{A}$
$I_{CEV}$	$V_{CE}=\text{Rated } V_{CEO}, V_{BE}=1.5\text{V}$ (2N3740A, 2N3741A)		100	nA
$I_{CEV}$	$V_{CE}=40\text{V}, V_{BE}=1.5\text{V}, T_C=150^\circ\text{C}$ (2N3740)		1.0	mA
$I_{CEV}$	$V_{CE}=40\text{V}, V_{BE}=1.5\text{V}, T_C=150^\circ\text{C}$ (2N3740A)		0.5	mA
$I_{CEV}$	$V_{CE}=60\text{V}, V_{BE}=1.5\text{V}, T_C=150^\circ\text{C}$ (2N3741)		1.0	mA
$I_{CEV}$	$V_{CE}=60\text{V}, V_{BE}=1.5\text{V}, T_C=150^\circ\text{C}$ (2N3741A)		0.5	mA
$I_{CBO}$	$V_{CB}=\text{Rated } V_{CBO}$ (2N3740, 2N3741)		100	$\mu\text{A}$
$I_{CBO}$	$V_{CB}=\text{Rated } V_{CBO}$ (2N3740A, 2N3741A)		100	nA
$I_{CEO}$	$V_{CE}=40\text{V}$ (2N3740)		1.0	mA
$I_{CEO}$	$V_{CE}=40\text{V}$ (2N3740A)		1.0	$\mu\text{A}$
$I_{CEO}$	$V_{CE}=60\text{V}$ (2N3741)		1.0	mA
$I_{CEO}$	$V_{CE}=60\text{V}$ (2N3741A)		1.0	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=7.0\text{V}$ (2N3740, 2N3741)		0.5	mA
$I_{EBO}$	$V_{EB}=7.0\text{V}$ (2N3740A, 2N3741A)		100	nA
$BV_{CEO}$	$I_C=100\text{mA}$ (2N3740, 2N3740A)	60		V
$BV_{CEO}$	$I_C=100\text{mA}$ (2N3741, 2N3741A)	80		V
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=125\text{mA}$		0.6	V
$V_{BE(ON)}$	$V_{CE}=1.0\text{V}, I_C=250\text{mA}$		1.0	V
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=100\text{mA}$	40		
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=250\text{mA}$	30	200	
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=500\text{mA}$	20		
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=1.0\text{A}$	10		
$h_{fe}$	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=1.0\text{kHz}$	25		
$f_T$	$V_{CE}=10\text{V}, I_C=100\text{mA}, f=1.0\text{MHz}$	4.0		MHz
$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=100\text{kHz}$		100	pF

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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**

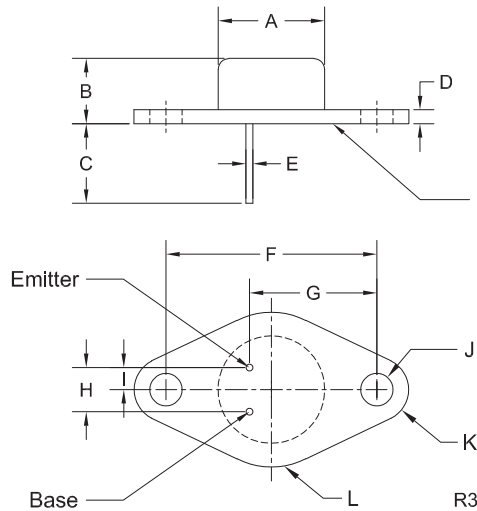
R2 (2-September 2014)

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TO-66 CASE - MECHANICAL OUTLINE



MARKING:  
 FULL PART NUMBER

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	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)

R2 (2-September 2014)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### 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

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### 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).

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### CONTACT US

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