

2N3740 2N3740A
2N3741 2N3741A

**PNP SILICON
POWER TRANSISTOR**



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



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N3740 Series types are PNP Silicon Power Transistors manufactured by the epitaxial base process designed for power amplifier and medium speed switching applications.

MARKING: FULL PART NUMBER

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)

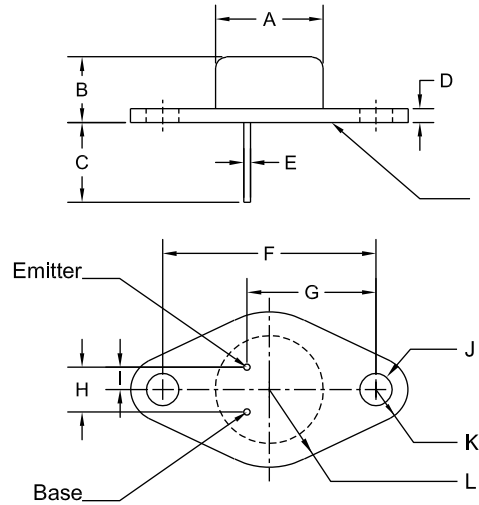
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CEV}	$V_{CE}=\text{Rated } V_{CEO}, V_{BE}=1.5\text{V}$ (2N3740, 2N3741)		100	μA
I_{CEV}	$V_{CE}=\text{Rated } V_{CEO}, V_{BE}=1.5\text{V}$ (2N3740A, 2N3741A)		100	nA
I_{CEV}	$V_{CE}=40\text{V}, V_{BE}=1.5\text{V}, T_C=150^\circ\text{C}$ (2N3740)		1.0	mA
I_{CEV}	$V_{CE}=40\text{V}, V_{BE}=1.5\text{V}, T_C=150^\circ\text{C}$ (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	μA
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	μA
I_{CEO}	$V_{CE}=60\text{V}$ (2N3741)		1.0	mA
I_{CEO}	$V_{CE}=60\text{V}$ (2N3741A)		1.0	μA
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
$V_{CE(\text{SAT})}$	$I_C=1.0\text{A}, I_B=125\text{mA}$		0.6	V
$V_{BE(\text{ON})}$	$V_{CE}=1.0\text{V}, I_C=250\text{mA}$		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

R1 (9-September 2011)

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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.

R2

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	0.958	0.962	24.33	24.43
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)	0.145		3.68	
L (RAD)	0.350		8.89	

TO-66 (REV:R2)

R1 (9-September 2011)