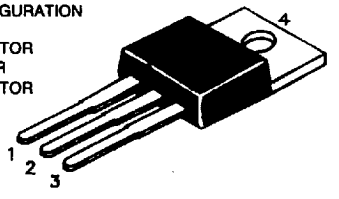
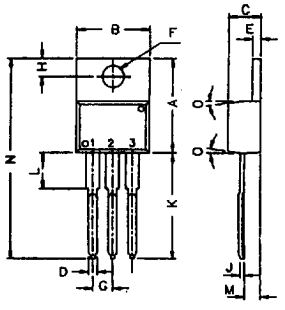
2N6740 NPN PLASTIC POWER TRANSISTOR

High Voltage and Power Supplies Switching Applications

PIN CONFIGURATION
1. BASE
2. COLLECTOR
3. EMITTER
4. COLLECTOR





DIM	MIN	MAX
A	14,42	16,51
B	9,63	10,67
C	3,56	4,83
D	–	0,90
E	1,15	1,40
F	3,75	3,88
G	2,29	2,79
H	2,54	3,43
J	–	0,56
K	12,70	14,73
L	–	6,35
M	2,03	2,92
N	–	31,24
O	7 DEG	

ALL DIMENSIONS ARE IN M.M.

ABSOLUTE MAXIMUM RATINGS

Collector-emitter voltage (V_{BE} = 1.5V)	V_{CEV}	max.	650 V
Collector-emitter voltage (open base)	V_{CEO}	max.	400 V
Collector current	I_C	max.	8.0 A
Total power dissipation up to T_C = 25°C	P_{tot}	max.	100 W
Junction temperature	T_j	max.	150 °C
Collector-emitter saturation voltage			
I_C = 5 A; I_B = 1 A	V_{CEsat}	max.	1.0 V
D.C. current gain			
I_C = 5 A; V_{CE} = 3 V	h_{FE}	min.	10
		max.	40

RATINGS (at T_A=25°C unless otherwise specified)

Limiting values			
Collector-emitter voltage (V_{BE} = 1.5V)	V_{CEV}	max.	650 V
Collector-emitter voltage (open base)	V_{CEO}	max.	400 V
Collector-emitter voltage (V_{BE} = 1.5V)	V_{CEX}	max.	450 V
Emitter-base voltage (open collector)	V_{EBO}	max.	8.0 V
Collector current	I_C	max.	8,0 A
Collector current (Peak)	I_{CM}	max.	10.0 A
Base current	I_B	max.	4 A
Total power dissipation up to T_C = 25°C	P_{tot}	max.	100 W

Derate above 25°C		max.	0.8 W/°C
Junction temperature	T_j	max.	150 °C
Storage temperature	T_{stg}		−65 to +150 °C

THERMAL RESISTANCE

From junction to ambient	Rth j–a	70 °C/W
From junction to case	Rth j–c	1.25 °C/W

CHARACTERISTICS

T_{amb} = 25°C unless otherwise specified

Collector cutoff current			
$V_{BE(off)}$ = 1.5 V; V_{CE} = 650 V	I_{CEV}	max.	0.1 mA
$V_{BE(off)}$ = 1.5 V; V_{CE} = 650 V; T_C = 125°C	I_{CEV}	max.	1 mA
Emitter cut-off current			
I_C = 0; V_{EB} = 8V	I_{EBO}	max.	2 mA
Breakdown voltages			
I_C = 200 mA; I_B = 0	V_{CEO}	min.	400 V
I_C = 1 mA; V_{BE} = 1.5 V	V_{CEV}	min.	650 V
I_E = 1 mA; I_C = 0	V_{EBO}	min.	8.0 V
Saturation voltages			
I_C = 5 A; I_B = 1 A	V_{CEsat}*	max.	1.0 V
	V_{BEsat}*	max.	1.6 V
I_C = 5 A; I_B = 1 A; T_C = 125°C	V_{CEsat}*	max.	2.0 V
I_C = 8 A; I_B = 4 A	V_{CEsat}*	max.	2.0 V
D.C. current gain			
I_C = 5 A; V_{CE} = 3 V	h_{FE}*	min.	10
		max.	40
Output capacitance at f = 0.1 MHz			
I_E = 0; VCB = 10 V	Co	max.	300 pF
		min.	50 pF
Transition frequency			
I_C = 200 mA; V_{CE} = 10 V	f_T	min.	15 MHz
		max.	60 MHz
Small signal current gain			
I_C = 0.2A; V_{CE} = 10V; f = 5 MHz	$\|h_{fe}\|$	min.	3
		max.	12
Switching time			
V_{CC} = 125 V; I_C = 5 A			
I_B = 1 A; t_p = 20 µs			
Delay time	t_d	max.	0.1 µs
Rise time	t_r	max.	0.5 µs
V_{CC} = 125 V; I_C = 5 A			
I_{B1} = −I_{B2} = 1 A; t_p = 20 µs			
Storage time	t_s	max.	2.5 µs
Fall time	t_f	max.	0.4 µs
Second breakdown collector current with base forward biased			
V_{CE} = 25 V; t = 0.5 s	$I_{S/b}$	min.	4 A

* Pulsed: pulse duration = 300 µs; duty factor ≤ 2%