

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS

CHARACTERISTICS	SYMBOL	2N3740	2N3741	UNIT
Collector-Emitter Voltage	V_{CEO}	60	80	V
Collector-Base Voltage	V_{CBO}	60	80	V
Emitter-Base Voltage	V_{EBO}	7.0		V
Collector Current-Continuous	I_C	4.0		A
Collector Current -Peak	I_{CM}	10		A
Base Current	I_B	2.0		A
Total Power Dissipation @ $T_c = 25^\circ\text{C}$ Derate Above 25°C	P_D	25	0.143	W W/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +200		$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	7.0		$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

CHARACTERISTIC		SYMBOL	MIN.	MAX.	UNIT
OFF CHARACTERISTICS					
Collector Emitter Sustaining Voltage ⁽¹⁾ ($I_C = 100\text{mA}, I_B = 0$)	2N3740	$V_{CEO(SUS)}$	60	-	V
	2N3741		80	-	
Collector Cutoff Current ($V_{CE} = 40\text{V}, I_B = 0$) ($V_{CE} = 60\text{V}, I_B = 0$)	2N3740	I_{CEO}	-	1.0	mA
	2N3741		-	1.0	
Collector Cutoff Current ($V_{CE} = 60\text{V}, V_{BE(off)} = 1.5\text{V}$) ($V_{CE} = 80\text{V}, V_{BE(off)} = 1.5\text{V}$) ($V_{CE} = 40\text{V}, V_{BE(off)} = 1.5\text{V}, T_c = 150^\circ\text{C}$) ($V_{CE} = 60\text{V}, V_{BE(off)} = 1.5\text{V}, T_c = 150^\circ\text{C}$)	2N3740	I_{CEX}	-	100	μA
	2N3741		-	100	μA
	2N3740		-	1.0	mA
	2N3741		-	1.0	mA
Collector Cutoff Current ($V_{CB} = 60\text{V}, I_E = 0$) ($V_{CB} = 80\text{V}, I_E = 0$)	2N3740	I_{CBO}	-	100	μA
	2N3741		-	100	
Emitter Cutoff Current ($V_{EB} = 7.0\text{V}, I_C = 0$)		I_{EBO}	-	0.5	mA
ON CHARACTERISTICS⁽¹⁾					
DC Current Gain ($I_C = 100\text{mA}, V_{CE} = 1.0\text{V}$) ($I_C = 250\text{mA}, V_{CE} = 1.0\text{V}$) ($I_C = 500\text{mA}, V_{CE} = 1.0\text{V}$) ($I_C = 1.0\text{A}, V_{CE} = 1.0\text{V}$)		h_{FE}	40	-	-
			30	100	
			20	-	
			10	-	
Collector Emitter On Voltage ($I_C = 1.0\text{A}, I_B = 125\text{mA}$)		$V_{CE(sat)}$	-	0.6	V
Base Emitter On Voltage ($I_C = 250\text{mA}, V_{CE} = 1.0\text{V}$)		$V_{BE(on)}$		1.0	V

2N3740, 2N3741

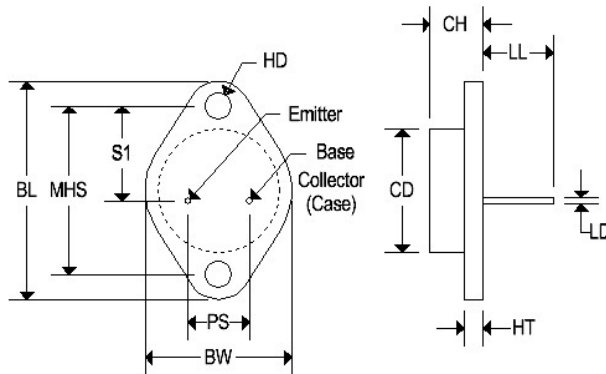
MEDIUM POWER PNP TRANSISTORS

CHARACTERISTIC	SYMBOL	MIN.	MAX.	UNIT
DYNAMIC CHARACTERISTICS				
Current Gain Bandwidth Product ⁽²⁾ ($I_C = 100\text{mA}$, $V_{CE} = 10\text{V}$, $f = 1.0\text{MHz}$)	f_T	3.0	-	MHz
Common Base Output Capacitance ($V_{CB} = 10\text{V}$, $I_C = 0$, $f = 100\text{KHz}$)	C_{ob}	-	100	pF
Small Signal Current Gain ($I_C = 50\text{mA}$, $V_{CE} = 10\text{V}$, $f = 1.0\text{KHz}$)	h_{fe}	25	-	-

Note 1: Pulse Test: Pulse width $\leq 300\text{ us}$, Duty Cycle $\leq 2.0\%$
Note 2: $F_T = h_{fe} \cdot f_{test}$

MECHANICAL CHARACTERISTICS

Case:	TO-66
Marking:	Alpha-numeric
Polarity:	See below



Dim	TO-66			
	Inches		Millimeters	
	Min	Max	Min	Max
BL	1.205	1.280	30.60	32.50
CD	0.445	0.557	11.303	14.148
CH	0.257	0.284	6.540	7.220
LL	0.374	0.413	9.500	10.50
BW	0.680	0.727	17.26	18.46
LD	0.030	0.036	0.760	0.920
HT	0.054	0.065	1.380	1.650
MHS	0.951	0.976	24.16	24.78
S1	0.545	0.614	13.84	15.60
HD	0.131	0.154	3.320	3.920
PS	0.191	0.210	4.860	5.340

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MEDIUM POWER PNP TRANSISTORS

