

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

Rating	Symbol	2N1724	Units
Collector-Emitter Voltage	V_{CEO}	80	V
Collector-Base Voltage	V_{CBO}	175	V
Emitter-Base Voltage	V_{EBO}	10	V
Collector Current	I_C	5.0	A
Power Dissipation @ $T_A = 25^\circ$ ⁽¹⁾	P_T	3.0	W
Power Dissipation @ $T_C = 100^\circ$ ⁽²⁾		50	W
Operating Junction Temperature	T_{OP}	175	$^\circ$ C
Storage Junction Temperature Range	T_{STG}	-65 to +100	$^\circ$ C

Note 1: Derate linearly 20mW/ $^\circ$ C for T_A between 25° C and 175° C

Note 2: Derate linearly 666mW/ $^\circ$ C for T_C between 100° C and 175° C

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage ($I_C = 200$ mA)	$V_{(BR)CEO}$	80	-	V
Emitter-Base Breakdown Voltage ($I_E = 10$ mA)	$V_{(BR)EBO}$	10	-	V
Collector-Emitter Cutoff Current ($V_{CE} = 60$ V)	I_{CES}	-	300	μ A
Collector-Base Cutoff Current ($V_{CB} = 175$ V)	I_{CBO}	-	5.0	mA
Emitter-Base Cutoff Current ($V_{EB} = 7.0$ V)	I_{EBO}	-	400	μ A
ON CHARACTERISTICS				
Forward Current Transfer Ratio ($I_C = 2.0$ A, $V_{CE} = 15$ V) ($I_C = 5.0$ A, $V_{CE} = 15$ V) ($I_C = 100$ mA, $V_{CE} = 15$ V)	h_{FE}	30 15 30	120 - -	-
Collector-Emitter Saturation Voltage ($I_C = 2.0$ A, $I_B = 200$ mA)	$V_{CE(sat)}$	-	0.6	V
Base-Emitter Saturation Voltage ($I_C = 2.0$ A, $I_B = 200$ mA)	$V_{BE(sat)}$	-	1.2	V

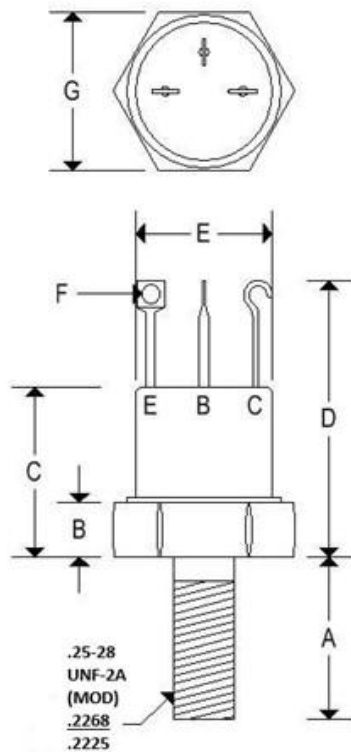
2N1724

NPN SILICON HIGH POWER TRANSISTOR

Characteristic	Symbol	Min	Max	Unit
DYNAMIC CHARACTERISTICS				
Magnitude of Common Emitter Small-Signal Short-Circuit Forward Current Transfer Ratio ($I_C = 500\text{mA}$, $V_{CE} = 15\text{V}$, $f = 10\text{MHz}$)	$ h_{fe} $	1.0	5.0	-
Output Capacitance ($V_{CB} = 15\text{V}$, $I_E = 0$, $100\text{kHz} \leq f \leq 1.0\text{MHz}$)	C_{obo}	-	550	pF

MECHANICAL CHARACTERISTICS

Case	TO-61
Marking	Alpha-numeric
Pin out	See below



	TO-61			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.422	0.455	10.720	11.560
B	0.090	0.150	2.290	3.810
C	0.325	0.460	8.260	11.680
D	0.640	0.875	16.260	22.220
E	0.570	0.610	14.480	15.490
F	0.047	0.072	1.190	1.830
G	0.667	0.687	16.940	17.450