THE DATASHEET OF

2N6725

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2N6725
Silicon NPN Darlington Transistor
TO–237 Type Package

Description:

The 2N6725 is a silicon NPN Darlington power transistors designed for amplifier applications.

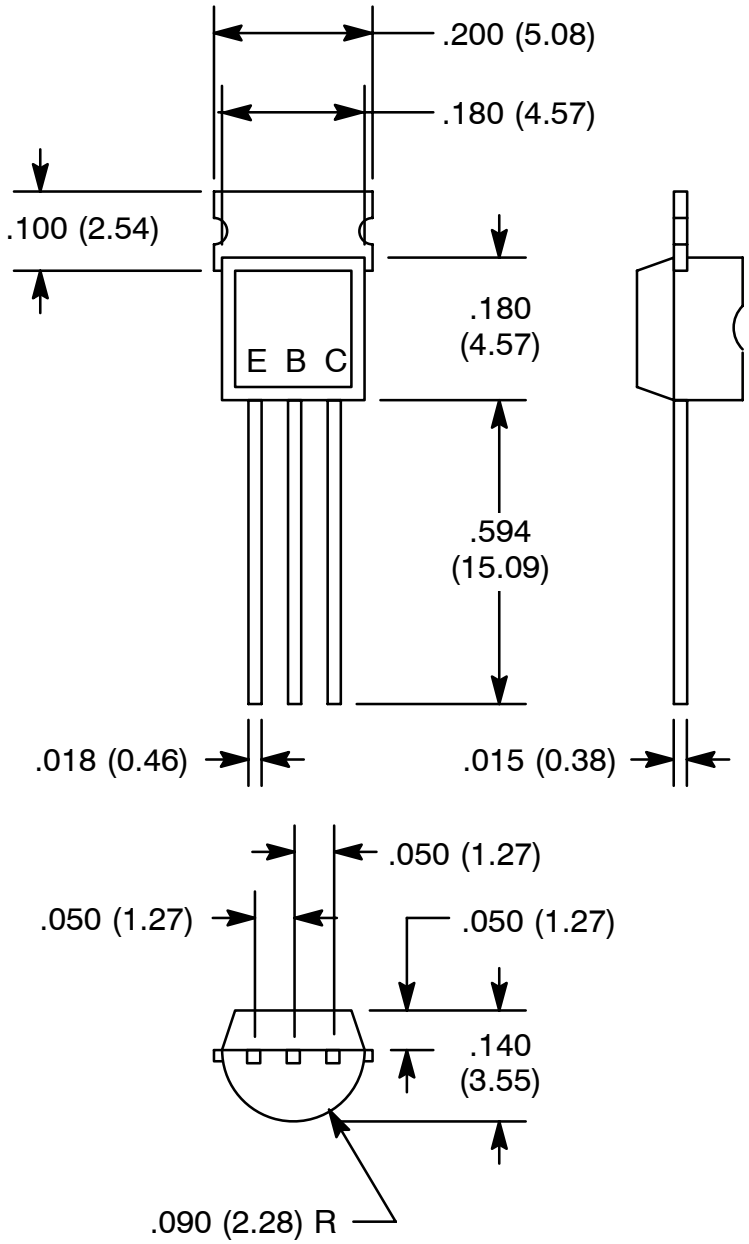
Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Collector–Base Voltage, V_{CBO} 60V
Collector–Emitter Voltage, V_{CEO} 50V
Emitter–Base Voltage, V_{EBO} 12V
Continuous Collector Current, I_C 2A
Continuous Base Current, I_B 0.5A
Power Dissipation, P_D
T_C = +25°C 2W
Operating Junction Temperature Range, T_J . . . . . –65° to +150°C
Storage Temperature Range, T_{stg} . . . . . –65° to +150°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 62.5°C/W

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 1μA, I_E = 0	60	–	–	V
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 1mA, I_B = 0 (Note 1)	50	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = 10μA, I_C = 0	10	–	–	V
Collector Cutoff Current	I_{CBO}	V_{CB} = 30V, I_E = 0	–	–	1.0	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 8V, I_C = 0	–	–	0.1	μA
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 200mA, I_B = 2mA (Note 1)	–	–	1.0	V
		I_C = 1A, I_B = 2mA (Note 1)	–	–	1.5	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 1A, I_B = 2mA (Note 1)	–	–	2.0	V
Base–Emitter Turn–On Voltage	$V_{BE(on)}$	I_C = 1A, V_{CE} = 5V* (Note 1)	–	–	2.0	V
Static Forward Current Transfer Ratio	h_{FE}	I_C = 200mA, V_{CE} = 5V* (Note 1)	25k	–	–	
		I_C = 500mA, V_{CE} = 5V* (Note 1)	15k	–	–	
		I_C = 1A, V_{CE} = 5V* (Note 1)	4k	–	40k	
Collector Base Capacitance	C_{CB}	V_{CB} = 10V, f = 1MHz	–	–	10	pF

Note 1. Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤ 2%


.200 (5.08)
.180 (4.57)
.100 (2.54)
.180
(4.57)
E B C
.594
(15.09)
.018 (0.46)
.015 (0.38)
.050 (1.27)
.050 (1.27)
.050 (1.27)
.140
(3.55)
.090 (2.28) R

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