



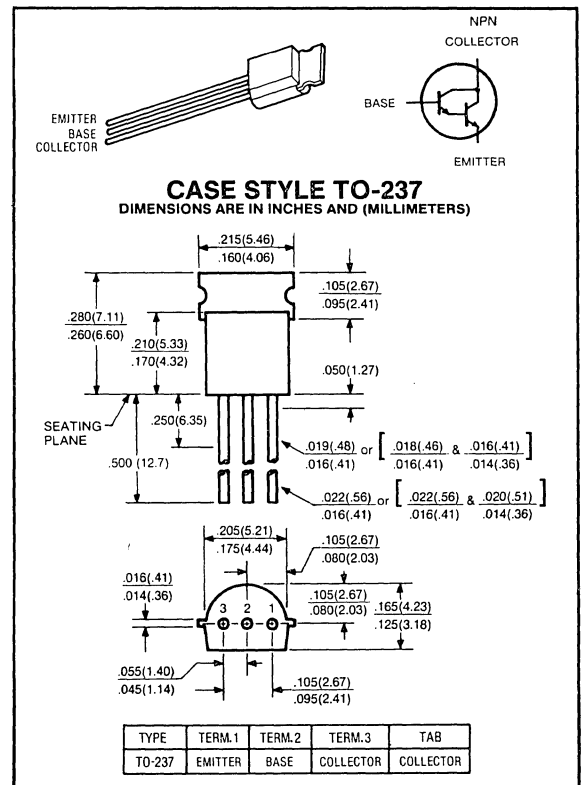
NPN POWER DARLINGTON TRANSISTORS

**92GU45,45A
2N6724,25**

**40-50 VOLTS
2 AMPS, 1 WATTS**

Features:

- Lamp driver
- Digit driver
- Directly compatible with bipolar and MOS I/C drive



maximum ratings ($T_A = 25^\circ C$) (unless otherwise specified)

RATING	SYMBOL	92GU45/2N6724	92GU45A/2N6725	UNITS
Collector-Emitter Voltage	V_{CEO}	40	50	Volts
Collector-Emitter Voltage	V_{CES}	50	60	Volts
Emitter Base Voltage	V_{EBO}	12	12	Volts
Collector Current — Continuous	I_C	2.0	2.0	A
Total Power Dissipation @ $T_A = 25^\circ C$	P_{DP}^*	1.0	1.0	Watts
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-55 to +150	-55 to +150	$^\circ C$

thermal characteristics

Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	200	200	$^\circ C/W$
Thermal Resistance, Junction to Case	$R_{\theta JC}$	62.5	62.5	$^\circ C/W$

* P_{DP} = Practical Power Dissipation, i.e., that power which can be dissipated with the device installed in a typical manner on a printed circuit board with total copper run area equal to 1.0 in.² minimum.

electrical characteristics ($T_C = 25^\circ C$) (unless otherwise specified)

CHARACTERISTIC	SYMBOL	MIN	TYP	MAX	UNIT
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off characteristics

Collector-Emitter Breakdown Voltage ($I_C = 1.0mA, V_{BE} = 0V$)	92GU45,2N6724	BV_{CES}	40	—	—	Volts
	92GU45A,2N6725		50	—	—	
Collector Cutoff Current ($V_{CB} = 30V, I_E = 0A$) ($V_{CB} = 40V, I_E = 0A$)	92GU45,2N6724	I_{CBO}	—	—	100	nA
	92GU45A,2N6725					
Emitter Cutoff Current ($V_{EB} = 10V, I_C = 0$)		I_{EBO}	—	—	100	μA

on characteristics

DC Current Gain ($I_C = 1mA, V_{CE} = 5V$) ($I_C = 500mA, V_{CE} = 5V$) ($I_C = 1000mA, V_{CE} = 5V$)	h_{FE}	25,000	—	—	—
		15,000	—	—	—
		4,000	—	—	—
Collector-Emitter Saturation Voltage ($I_C = 1000mA, I_B = 2mA$) ($I_C = 200mA, I_B = 2mA$)	$V_{CE(sat)}$	—	—	1.5	V
		—	—	1.0	
Base-Emitter Saturation Voltage ($I_C = 1000mA, V_{CE} = 2mA$)	$V_{BE(sat)}$	—	—	2.0	Volts
Base-Emitter On Voltage ($I_C = 1000mA, V_{CE} = 5V$)	$V_{BE(on)}$	—	—	2.0	Volts