

T-29-23



NPN POWER TRANSISTORS

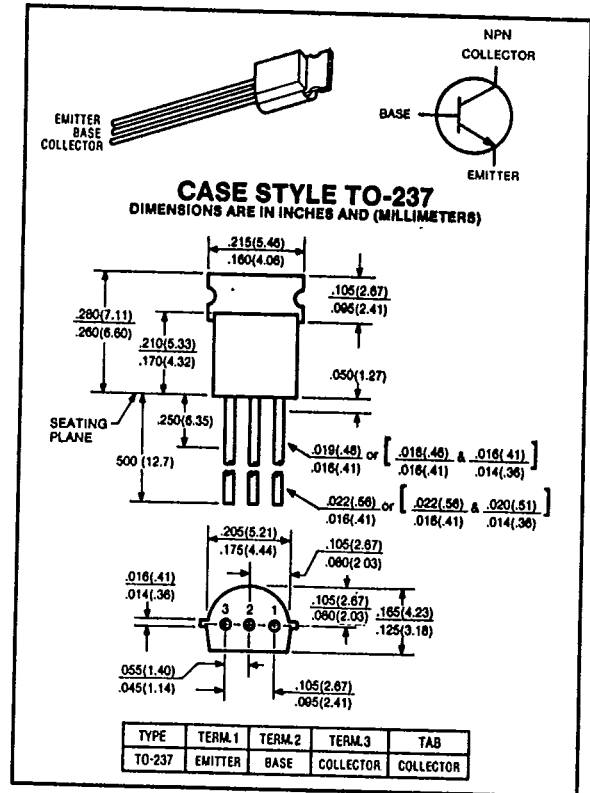
COMPLEMENTARY TO THE
2N6726, 27/92GU51, 51A SERIES

**92GU01,01A
2N6714,15**

**30-40 VOLTS
2 AMP, 1.2 WATTS**

Applications:

- Class "B" audio outputs/drivers
- General purpose switching and lamp drive in industrial and automotive circuits.



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

RATING	SYMBOL	92GU01/2N6714	92GU01A/2N6715	UNITS
Collector-Emitter Voltage	V_{CE0}	30	40	Volts
Collector-Base Voltage	V_{CB}	40	50	Volts
Emitter Base Voltage	V_{EB}	5	5	Volts
Collector Current — Continuous	I_C	2.0	2.0	A
Total Power Dissipation @ $T_A = 25^\circ C$	P_{DP}^*	1.2	1.2	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	$R_{\theta JA}$	167	167	$^\circ C/W$
Thermal Resistance, Junction to Case	$R_{\theta JC}$	50	50	$^\circ C/W$

* 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.

CHARACTERISTIC	SYMBOL	MIN	TYP	MAX	UNIT
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off characteristics

Collector-Emitter Sustaining Voltage ($I_C = 10\text{mA}$, $I_B = 0\text{A}$)	92GU01,2N6714 92GU01A,2N6715	$V_{CEO(sus)}$	30 40	— —	— —	Volts
Collector Cut-off Current ($V_{CB} = 40\text{V}$, $I_E = 0$) ($V_{CB} = 50\text{V}$, $I_E = 0$)	92GU01,2N6714 92GU01A,2N6715	I_{CBO}	—	—	0.1	μA
Emitter Cutoff Current ($V_{EB} = 5\text{V}$, $I_C = 0$)		I_{EBO}	—	—	0.1	μA

on characteristics

DC Current Gain ($I_C = 10\text{mA}$, $V_{CE} = 1.0\text{V}$) ($I_C = 100\text{mA}$, $V_{CE} = 1.0\text{V}$) ($I_C = 1000\text{mA}$, $V_{CE} = 1.0\text{V}$)		h_{FE}	55 60 50	— — —	— — —	—
Base-Emitter On Voltage ($I_C = 1.0\text{A}$, $V_{CE} = 1\text{V}$)		$V_{BE(on)}$	—	—	1.2	V
Collector-Emitter Saturation Voltage ($I_C = 1.0\text{A}$, $I_B = 100\text{mA}$)		$V_{CE(sat)}$	—	—	.5	Volts

dynamic characteristics

Collector Capacitance ($V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$)		C_{BO}	—	—	30	pF
Current-Gain Bandwidth Product ($I_C = 50\text{mA}$, $V_{CE} = 10\text{V}$, $f = 1\text{MHz}$)		f_T	50	—	—	MHz