NPN POWER TRANSISTORS

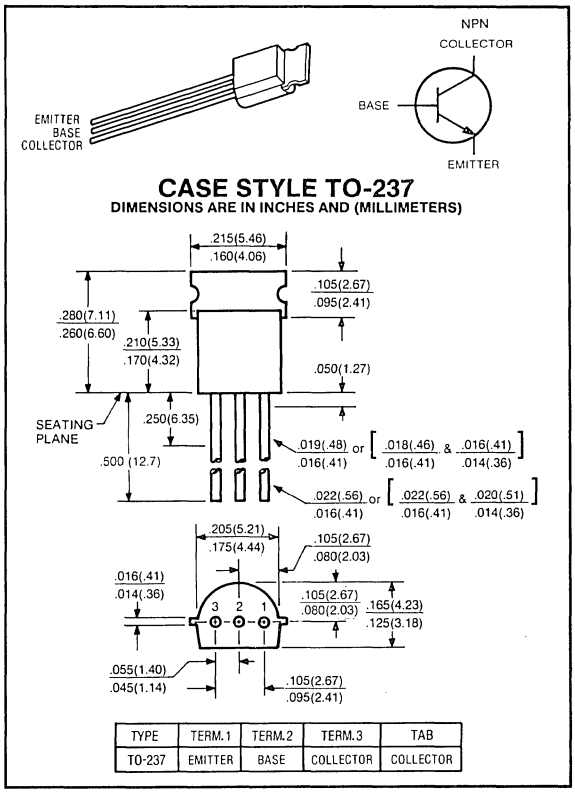
COMPLEMENTARY TO THE 2N6726, 27/92GU51, 51A SERIES

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°C) (unless otherwise specified)

RATING	SYMBOL	92GU01/2N6714	92GU01A/2N6715	UNITS
Collector-Emitter Voltage	V_{CEO}	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°C	P_{DP}*	1.2	1.2	Watts
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-55 to +150	-55 to +150	°C

thermal characteristics

Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	167	167	°C/W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	50	50	°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_A = 25° C) (unless otherwise specified)

CHARACTERISTIC	SYMBOL	MIN	TYP	MAX	UNIT
off characteristics					
Collector-Emitter Sustaining Voltage 92GU01,2N6714 (I_C = 10mA, I_B = 0A) 92GU01A,2N6715	$V_{CEO(sus)}$	30 40	— —	— —	Volts
Collector Cut-off Current (V_{CB} = 40V, I_E = 0) 92GU01,2N6714 (V_{CB} = 50V, I_E = 0) 92GU01A,2N6715	I_{CBO}	—	—	0.1	μA
Emitter Cutoff Current (V_{EB} = 5V, I_C = 0)	I_{EBO}	—	—	0.1	μA
on characteristics					
DC Current Gain (I_C = 10mA, V_{CE} = 1.0V) (I_C = 100mA, V_{CE} = 1.0V) (I_C = 1000mA, V_{CE} = 1.0V)	h_{FE}	 55 60 50	 — — —	 — — —	—
Base-Emitter On Voltage (I_C = 1.0A, V_{CE} = 1V	$V_{BE(on)}$	—	—	1.2	V
Collector-Emitter Saaturation Voltage (I_C = 1.0A, I_B = 100mA)	$V_{CE(sat)}$	—	—	.5	Volts
dynamic characteristics					
Collector Capacitance (V_{CB} = 10V, I_E = 0, f = 1MHz)	C_{BO}	—	—	30	pF
Current-Gain Bandwidth Product (I_C = 50mA, V_{CE} = 10V, f = 1MHz)	f_T	50	—	—	MHz