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2N6728 & 2N6730
Silicon PNP Transistor
General Purpose Power Amp, Switch
TO–237 Type Package

Description:

The 2N6728 and 2N6730 are silicon NPN power transistors in a TO–237 type package designed for general purpose power amplifier and switching applications.

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

Collector–Base Voltage, V_{CBO}
- 2N6728 . . . . . 60V
- 2N6730 . . . . . 100V

Collector–Emitter Voltage, V_{CEO}
- 2N6728 . . . . . 60V
- 2N6730 . . . . . 100V

Emitter–Base Voltage, V_{EBO} 5V
Continuous Collector Current, I_C 2A
Continuous Base Current, I_B 500mA
Power Dissipation, P_D
- T_A = +25°C 1W
- 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–Ambient, R_{thJA} . . . . . 125°C/W
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 2N6728	$V_{(BR)CBO}$	I_C = 0.1mA	60	–	–	V
2N6730			100	–	–	V
Collector–Emitter Breakdown Voltage 2N6728	$V_{(BR)CEO}$	I_C = 1mA	60	–	–	V
2N6730			100	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = 0.1mA	5	–	–	V
Collector Cutoff Current	I_{CBO}	V_{CB} = Rated V_{CBO}	–	–	0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = Rated V_{EBO}	–	–	10	μA

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

Parameter	Symbol	Condition	Min	Typ	Max	Unit
DC Current Gain	h_{FE}	V_{CE} = 1V, I_C = 50mA	80	–	–	
		V_{CE} = 1V, I_C = 250mA	50	–	250	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 250mA, I_B = 10mA	–	–	0.5	V
Base–Emitter ON Voltage	$V_{BE(on)}$	I_C = 250mA, V_{CE} = 1V	–	–	1.2	V
Transition Frequency	f_T	V_{CE} = 5V, I_C = 200mA, f = 20MHz	50	–	500	MHz
Output Capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz	–	–	30	pF