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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: ($T_A = +25^\circ\text{C}$ 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		
$T_A = +25^\circ\text{C}$	1W	
$T_C = +25^\circ\text{C}$	2W	
Operating Junction Temperature Range, T_J	-65° to $+150^\circ\text{C}$	
Storage Temperature Range, T_{stg}	-65° to $+150^\circ\text{C}$	
Thermal Resistance, Junction-to-Ambient, R_{thJA}	125°C/W	
Thermal Resistance, Junction-to-Case, R_{thJC}	62.5°C/W	

Electrical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 0.1\text{mA}$	60	-	-	V
2N6728			100	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}$	60	-	-	V
2N6728			100	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 0.1\text{mA}$	5	-	-	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = \text{Rated } V_{CBO}$	-	-	0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = \text{Rated } V_{EBO}$	-	-	10	μA

Electrical Characteristics (Cont'd): ($T_A = +25^\circ\text{C}$ unless otherwise specified)

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

