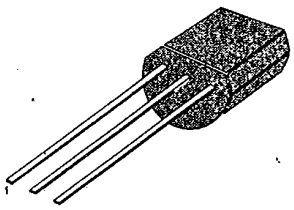
2N6428 NPN EPITAXIAL SILICON TRANSISTOR

AMPLIFIER TRANSISTOR

- **Collector-Emitter Voltage: V_{CEO}=50V**
- **Collector Dissipation: P_C (max)=625mW**

TO-92



1. Emitter 2. Base 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_a =25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	200	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature	Tstg	−55 − 150	°C

- Refer to 2N5088 for graphs

ELECTRICAL CHARACTERISTICS (T_a =25°C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=100μA, I_E=0	60			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=1mA, I_B=0	50			V
Collector Cut-off Current	I_{CBO}	V_{CB}=30V, I_E=0			10	nA
Collector Cut-off Current	I_{CEO}	V_{CE}=30V, I_B=0			25	nA
Emitter Cut-off Current	I_{EBO}	V_{BE}=5V, I_C=0			10	nA
DC Current Gain	h_{FE}	I_C=10μA, V_{CE}=5V	250			
		I_C=100μA, V_{CE}=5V	250		650	
		I_C=1mA, V_{CE}=5V	250			
		I_C=10mA, V_{CE}=5V	250			
Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C=10mA, I_B=0.5mA			0.2	V
		I_C=100mA, I_B=5mA			0.6	V
Base-Emitter On Voltage	V_{BE} (on)	I_C=1mA, V_{CE}=5V	0.56		0.66	V
Current Gain Bandwidth Product	f_T	I_C=1mA, V_{CE}=5V f=100MHz	100		700	MHz
Output Capacitance	Cob	V_{CB}=10V, I_E=0 f=1MHz			3	pF
Noise Figure/Noise Voltage Level	NF/N_V	I_C=100μA, V_{CE}=5V				
		(1) R_S=10KΩ, BW=1Hz f=100Hz			3/18.1	dB/nV
		(2) R_S=50KΩ, BW=15.7KHz f=10Hz—10KHz			6/5.7	dB/μV
		(3) R_S=500Ω, BW=1Hz f=10Hz			3.5/4.3	dB/nV

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