

2N6428/6428A

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Amplifier Transistor

- Collector-Emitter Voltage: $V_{CE0} = 50V$
- Collector Dissipation: $P_C (\text{max}) = 625mW$



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	200	mA
P_C	Collector Dissipation	625	mW
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

• Refer to 2N5088 for graphs

Electrical Characteristics $T_a = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = 100\mu A, I_E = 0$	60			V
BV_{CEO}	* Collector-Emitter Breakdown Voltage	$I_C = 1mA, I_B = 0$	50			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 30V, I_E = 0$			10	nA
I_{CEO}	Collector Cut-off Current	$V_{CE} = 30V, I_B = 0$			25	nA
I_{EBO}	Emitter Cut-off Current	$V_{BE} = 5V, I_C = 0$			10	nA
h_{FE}	* DC Current Gain	$V_{CE} = 5V, I_C = 10\mu A$ $V_{CE} = 5V, I_C = 100\mu A$ $V_{CE} = 5V, I_C = 1mA$ $V_{CE} = 5V, I_B = 10mA$	250 250 250 250		650	
$V_{CE} (\text{sat})$	* Collector-Emitter Saturation Voltage	$I_C = 10mA, I_B = 0.5mA$ $I_C = 100mA, I_B = 5mA$			0.2 0.6	V V
$V_{BE} (\text{on})$	Base-Emitter On Voltage	$I_C = 1mA, V_{CE} = 5V$	0.56		0.66	V
C_{ob}	Output Capacitance	$V_{CB} = 10V, I_E = 0, f = 1MHz$			3	pF
f_T	Current Gain Bandwidth Product	$V_{CE} = 5V, I_C = 1mA, f = 100MHz$	100		700	MHz
NF/NV	Noise Figure/Noise Voltage Level	$V_{CE} = 5V, I_C = 100\mu A$ (1) $R_S = 10K\Omega, B_W = 1Hz$ $f = 100Hz$ (2) $R_S = 50K\Omega, B_W = 15.7Hz$ $f = 10Hz - 10KHz$ (3) $R_S = 500\Omega, B_W = 1Hz$ $f = 10Hz$			3/18.1 2/16.2 6/5.7 4/4.6 3.5/4.3 3/4.1	dB/nV dB/nV dB/nV dB/nV dB/nV dB/nV

Package Dimensions

TO-92

2N6428/6428A



Dimensions in Millimeters

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