

2N5428, 2N5429

NPN SILICON HIGH POWER TRANSISTORS

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS

Ratings	Symbol	2N5428	2N5429	Unit
Collector-Emitter Voltage	V_{CE0}	80	100	Vdc
Collector-Base Voltage	V_{CBO}	80	100	Vdc
Emitter-Base Voltage	-5	6.0		Vdc
Collector Current	I_C	7.0		Adc
Base Current	I_B	1.0		Adc
Total Power Dissipation $T_C = 25^\circ\text{C}$	P_D	40		W
Junction Temperature	T_J	200		$^\circ\text{C}$
Storage Junction Temperature Range	T_{stg}	-65 to +200		$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	4.37		$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Characteristics	Symbol	Min.	Max.	Unit	
OFF CHARACTERISTICS					
Collector-Emitter Sustaining Voltage $I_C = 50\text{mAdc}, I_B = 0$	2N5428 2N5429	$V_{CE0(sus)}$	80 100	- -	Vdc
Collector-Emitter Saturation Voltage $I_C = 2\text{Adc}, I_B = 0.2\text{ Adc}$ $I_C = 7\text{Adc}, I_B = 0.7\text{ Adc}$		$V_{CE(sat)}$	- -	0.7 1.2	Vdc
Collector-Base Saturation Voltage $I_C = 2\text{Adc}, I_B = 0.2\text{ Adc}$ $I_C = 7\text{Adc}, I_B = 0.7\text{ Adc}$		$V_{BE(sat)}$	- -	1.2 2.0	Vdc
Collector Cutoff Current $V_{CB} = \text{Rated } V_{CBO}, I_E = 0$		I_{CBO}	-	0.1	mAdc
Collector Cutoff Current $V_{CE} = 75\text{Vdc}, V_{BE(off)} = -1.5\text{Vdc}$ $V_{CE} = 90\text{Vdc}, V_{BE(off)} = -1.5\text{Vdc}$ $V_{CE} = 75\text{Vdc}, V_{BE(off)} = -1.5\text{Vdc}, T_C = 150^\circ\text{C}$ $V_{CE} = 90\text{Vdc}, V_{BE(off)} = -1.5\text{Vdc}, T_C = 150^\circ\text{C}$	2N5428 2N5429 2N5428 2N5429	I_{CEO}	- - - -	0.1 0.1 1.0 1.0	mAdc
Emitter Cutoff Current $V_{EB} = 7\text{Vdc}, I_C = 0$		I_{EBO}	-	1.0	mAdc
DC Current Gain $I_C = 0.5\text{Adc}, V_{CE} = 2.0\text{ Vdc}$ $I_C = 2\text{Adc}, V_{CE} = 2.0\text{ Vdc}$ $I_C = 5\text{Adc}, V_{CE} = 2.0\text{ Vdc}$		h_{FE}	60 60 40	- 240 -	-
Transition Frequency $I_C = 500\text{mAdc}, V_{CE} = 10\text{Vdc}, f = 1\text{MHz}$		f_T	20	-	MHz



High-reliability discrete products
and engineering services since 1977

2N5428, 2N5429

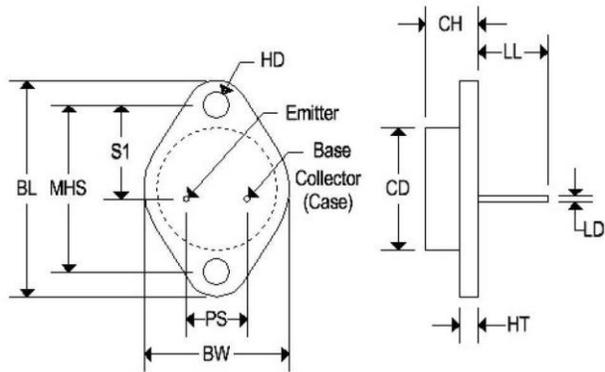
NPN SILICON HIGH POWER TRANSISTORS

2N5428, 2N5429

NPN SILICON HIGH POWER TRANSISTORS

MECHANICAL CHARACTERISTICS

Case	TO-66
Marking	Alpha-numeric
Polarity	See below



Dim	TO-66			
	Inches		Millimeters	
	Min	Max	Min	Max
BL	1.205	1.280	30.60	32.50
CD	0.445	0.557	11.303	14.148
CH	0.257	0.284	6.540	7.220
LL	0.374	0.413	9.500	10.50
BW	0.680	0.727	17.26	18.46
LD	0.030	0.036	0.760	0.920
HT	0.054	0.065	1.380	1.650
MHS	0.951	0.976	24.16	24.78
S1	0.545	0.614	13.84	15.60
HD	0.131	0.154	3.320	3.920
PS	0.191	0.210	4.860	5.340