



NPN POWER TRANSISTORS

20 & 30 AMP

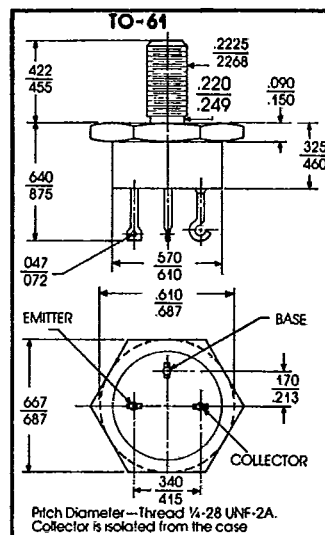
2N5329
2N5330

GEOMETRY 511

- Ic to 30 Amp
- Fast Switching

MAXIMUM RATINGS

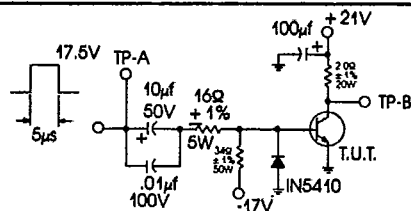
PARAMETER	SYMBOL	2N5329	2N5330	UNIT
Collector-Emitter Voltage	V _{CEO}	90	90	V
Collector-Base Voltage	V _{CB0}	150	150	V
Emitter-Base Voltage	V _{EB0}	8	8	V
Collector Current-Continuous		20	30	A
-Peak*		30	40	A
Base Current-Continuous		5	5	A
-Peak*		8	8	A
Emitter Current-Continuous		20	30	A
-Peak*		30	40	A
Power Dissipation @ TC ≤ 100°C		65	80	W
Linear Derating Factor		650	800	mW/°C
Peak Power Dissipation @ TC ≤ 25°C		1	1	KW
300 μsec PW @ 60 PPS				
Linear Derating Factor		5.7	5.7	W/°C
Storage and Operating Junction Temperature Range		-65°C to +200°C		
Lead Temp. (1/16" ± 1/32" from case)		230°C for 10 seconds		

ELECTRICAL CHARACTERISTICS AT 25°C CASE TEMPERATURE
(unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	2N5329		2N5330		UNIT
			MIN.	MAX.	MIN.	MAX.	
Collector Cutoff Current	I _{CEV}	V _{CE} = 150V, V _{BE} = -.5V, T _C = 150°C		50		50	mA
		V _{CE} = 150V, V _{BE} = -.5V-reverse bias		5		10	mA
Emitter Cutoff Current	I _{EBO}	V _{EB} = 8.0V		5		5	mA
Collector-Emitter Sustain Voltage	V _{CEO(sus)}	I _B = 0, I _C = 100mA	90		90		V
*DC Forward Current Transfer Ratio	h _{FE}	V _{CE} = 2V, I _C = 10A	40	120	40	120	
		V _{CE} = 3V, I _C = 20A	10				
		V _{CE} = 3V, I _C = 30A			10	50	
*Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C = 10A, I _B = .5A				.6	V
		I _C = 20A, I _B = 2A		1.8			V
		I _C = 30A, I _B = 3A				1.8	V
*Base-Emitter Voltage	V _{BE(sat)}	I _C = 10A, I _B = .3A				1.3	V
		I _C = 20A, I _B = 2A		1.7			V
		I _C = 30A, I _B = 3A				1.8	V
Turn-On Time	t _{ON}	See Diagram Below.		.350		.350	μsec
Turn-Off Time	t _{OFF}			1.1		1.250	μsec
High Frequency Beta	h _{FE}	V _{CE} = 10V, I _C = 3A, f = 10mHz	8		8		

SWITCHING CIRCUIT-SATURATED

Z_{IN} = 50Ω
I_C = 10ADC
I_{B1} = I_{B2} = 0.5 AMPS



* Pulsed.
Pulse width = 300 μsec. 2% duty cycle.

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