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2N6288

N-P-N SILICON TRANSISTOR

*MAXIMUM RATINGS

Rating	Symbol		Unit
Collector-Emitter Voltage	V_{CEO}	30	Vdc
Collector-Base Voltage	V_{CB}	40	Vdc
Emitter-Base Voltage	V_{EB}		Vdc
Collector Current — Continuous	I_C	7.0	Adc
Collector Current — Peak	I_C	10	Adc
Base Current	I_B	3.0	Adc
Total Power Dissipation @ $T_C = 25^\circ\text{C}$ Derate above 25°C	P_D	40 0.32	Watts W/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	3.125	$^\circ\text{C/W}$

*Indicates JEDEC Registered Data

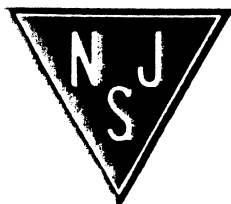
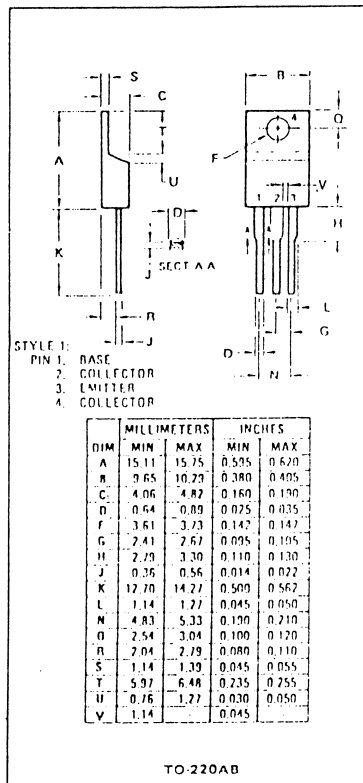
*ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Sustaining Voltage (1) ($I_C = 100 \text{ mAdc}, I_B = 0$)	$V_{CEO(sus)}$	30	—	Vdc
Collector Cutoff Current ($V_{CE} = 20 \text{ Vdc}, I_B = 0$)	I_{CEO}	—	1.0	mAdc
Collector Cutoff Current ($V_{CE} = 40 \text{ Vdc}, V_{EB(off)} = 1.5 \text{ Vdc}$) ($V_{CE} = 30 \text{ Vdc}, V_{EB(off)} = 1.5 \text{ Vdc}, T_C = 150^\circ\text{C}$)	I_{CEX}	—	100 2.0	μAdc mAdc
Emitter Cutoff Current ($V_{BE} = 5.0 \text{ Vdc}, I_C = 0$)	I_{EBO}	—	1.0	mAdc
ON CHARACTERISTICS (1)				
DC Current Gain ($I_C = 3.0 \text{ Adc}, V_{CE} = 4.0 \text{ Vdc}$) ($I_C = 7.0 \text{ Adc}, V_{CE} = 4.0 \text{ Vdc}$)	h_{FE}	30 2.3	150 —	—
Collector-Emitter Saturation Voltage ($I_C = 7.0 \text{ Adc}, I_B = 3.0 \text{ Adc}$)	$V_{CE(sat)}$	—	3.5	Vdc
Base-Emitter On Voltage ($I_C = 7.0 \text{ Adc}, V_{CE} = 4.0 \text{ Vdc}$)	$V_{BE(on)}$	—	3.0	Vdc
DYNAMIC CHARACTERISTICS				
Current Gain — Bandwidth Product (2) ($I_C = 500 \text{ mAdc}, V_{CE} = 4.0 \text{ Vdc}, f_{test} = 1.0 \text{ MHz}$)	f_T	10	—	MHz
Output Capacitance ($V_{CB} = 10 \text{ Vdc}, I_E = 0, f = 1.0 \text{ MHz}$)	C_{ob}	—	250	pF
Small-Signal Current Gain ($I_C = 0.5 \text{ Adc}, V_{CE} = 4.0 \text{ Vdc}, f = 50 \text{ kHz}$)	h_{fe}	20	—	—

*Indicates JEDEC Registered Data.

(1) Pulse Test: Pulse Width $\leq 300 \mu\text{s}$, Duty Cycle $\leq 2.0\%$.

(2) $f_T = |h_{fe}| \cdot f_{test}$



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