

PNP SILICON PLANAR MEDIUM POWER HIGH GAIN TRANSISTOR

Features

- 200 Volt V_{CE0}
- Gain of 250 at $I_C=0.3$ Amps
- Very low saturation voltage

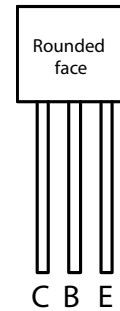
Mechanical Data

- Case: E-Line



Bottom View

E-Line
TO92 Compatible



Pin Configuration

Maximum Ratings

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-200	V
Collector-Emitter Voltage	V_{CEO}	-200	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-1	A
Continuous Collector Current	I_C	-0.5	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Practical Power Dissipation (Note 1)	P_{totp}	1.5	W
Power Dissipation $T_A = 25^\circ\text{C}$ Derate above 25°C	P_{tot}	1 5.7	W mW / $^\circ\text{C}$
Thermal Resistance Junction to Ambient ₁ (Note 2)	$R_{\theta JA1}$	175	$^\circ\text{C/W}$
Thermal Resistance Junction to Ambient ₂ (Note 2)	$R_{\theta JA2}$	116	$^\circ\text{C/W}$
Thermal Resistance Junction to Case	$R_{\theta JC}$	70	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +200	$^\circ\text{C}$

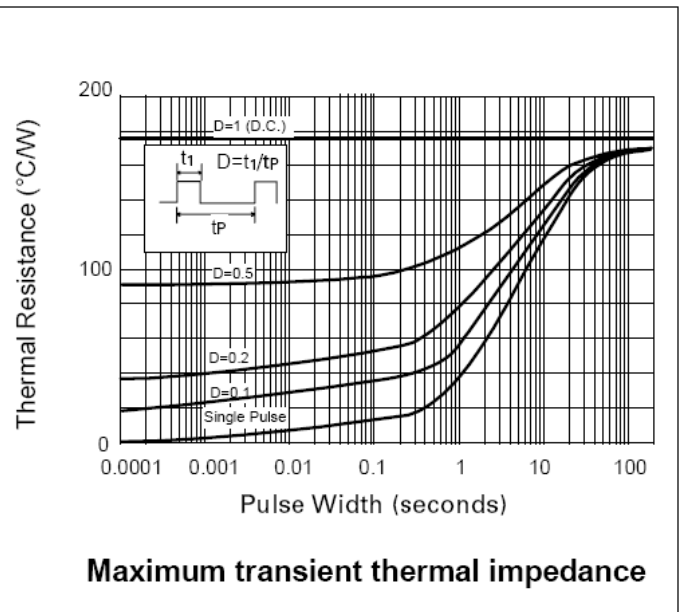
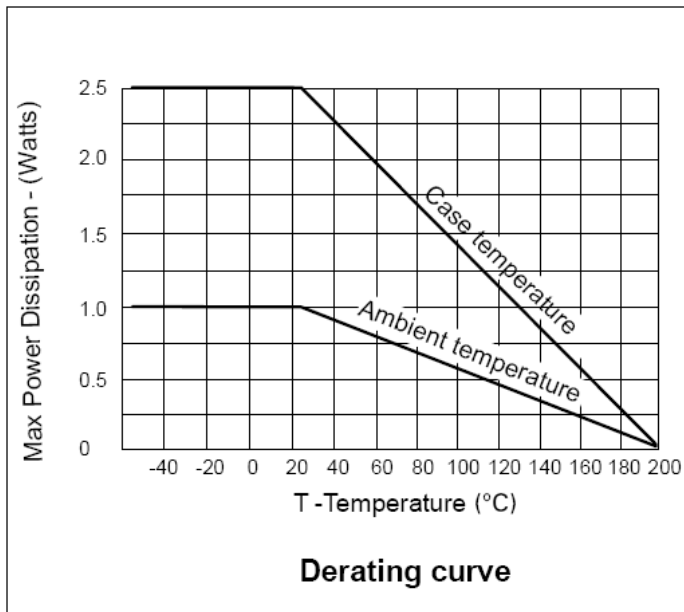
- Notes: 1. The power which can be dissipated assuming the device is mounted in a typical manner on a P.C.B. with copper equal to 1 inch square minimum
2. Device mounted on P.C.B. with copper equal to 1 sq. Inch minimum.

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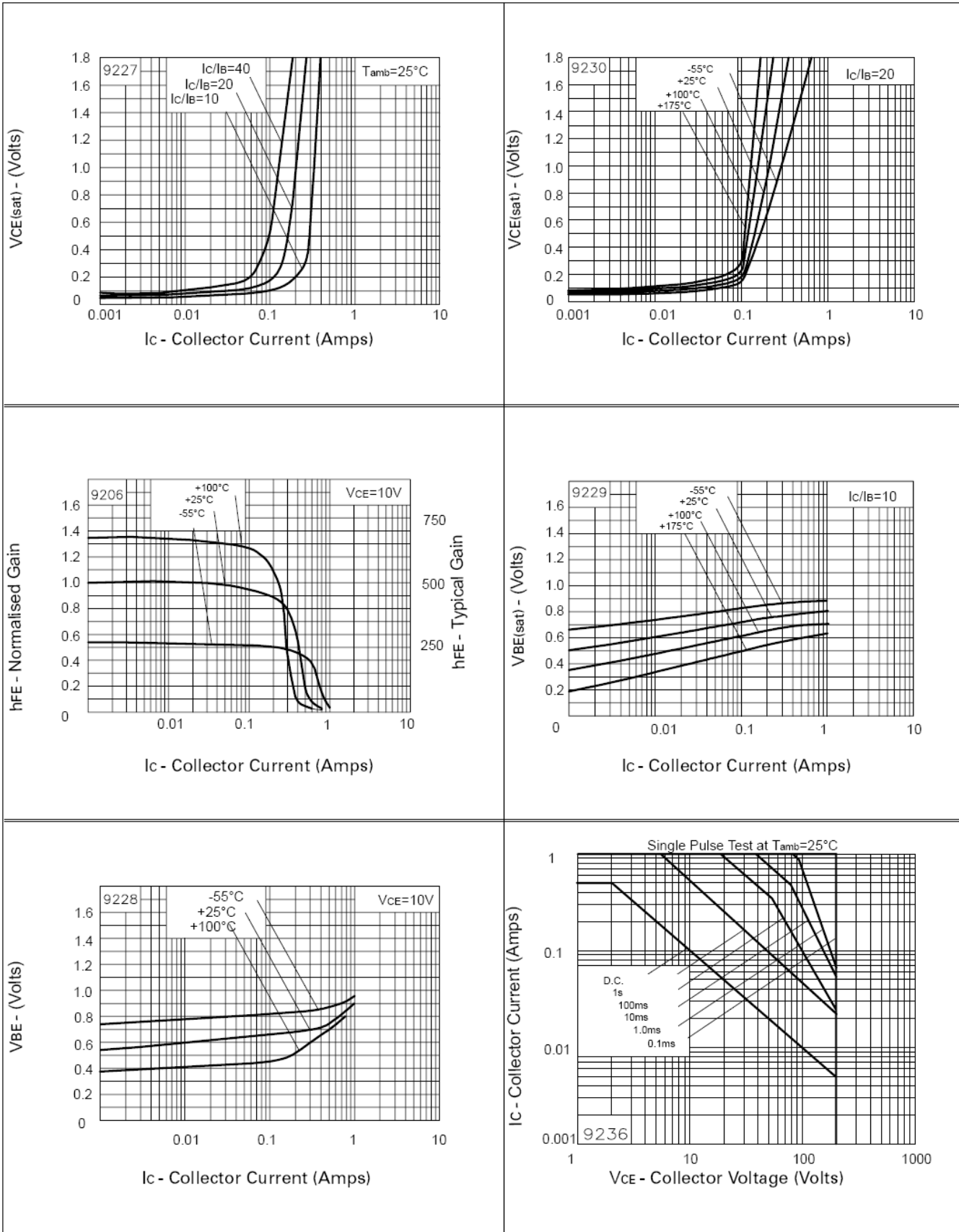
Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Collector-Base Breakdown Voltage	V _{(BR)CBO}	-200	-	-	V	I _C = -100μA
Collector-Emitter Breakdown Voltage (Note 3)	V _{(BR)CEO}	-200	-	-	V	I _C = -10mA
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	-5	-	-	V	I _E = -100μA
Collector Cutoff Current	I _{CBO}	-	-	-0.1	μA	V _{CB} = -150V
Emitter Cutoff Current	I _{EBO}	-	-	-0.1	μA	V _{EB} = -4V
Collector-Emitter Saturation Voltage (Note 3)	V _{CE(sat)}	-	-	-0.2	mV	I _C = -50mA, I _B = -2mA
				-0.3	mV	I _C = -100mA, I _B = -5mA
Base-Emitter Saturation Voltage (Note 3)	V _{BE(sat)}	-	-	-0.95	mV	I _C = -200mA, I _B = -20mA
Base-Emitter Turn-On Voltage (Note 3)	V _{BE(on)}	-	-0.67		mV	I _C = -200mA, V _{CE} = -10V
Static Forward Current Transfer Ratio (Note 3)	h _{FE}	300 300 250 100	-	800		I _C = -10mA, V _{CE} = -5V
						I _C = -1A, V _{CE} = -5V
						I _C = -2A, V _{CE} = -5V
						I _C = -5A, V _{CE} = -5V
Transition Frequency	f _T	100	-	-	MHz	V _{CE} = -5V, I _C = -50mA f = 50MHz
Input Capacitance	C _{ibo}	-	225	-	pF	V _{EB} = -0.5V, f = 1MHz
Output Capacitance	C _{obo}	-	12	-	pF	V _{CB} = -10V, f = 1MHz
Switching Times	t _{on}	-	100	-	ns	V _{CC} = -50V, I _C = -100mA
	t _{off}	-	3200	-	ns	I _{B1} = -I _{B2} = -10mA

Notes: 3. Measured under pulsed conditions. Pulse width = 300 μs. Duty cycle ≤ 2%



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ZTX796A**PNP SILICON PLANAR MEDIUM POWER HIGH GAIN TRANSISTOR****IMPORTANT NOTICE**

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