

100 AMP NPN PLANAR

- o TO-5

o 5 WATTS @ 100°C
- o 60 MHz (typical)

o PREMIUM GRADE

MAXIMUM RATINGS @ 25°C AMBIENT

RATING	PG1310	PG1311	PG1312	UNIT
	PG1313	PG1314	PG1315	
	PG1316	PG1317	PG1318	
Collector-Base Voltage	70	90	120	Volts
Emitter-Base Voltage	8	8	8	Volts
Collector-Emitter Voltage	50	70	100	Volts
Peak Collector Current	10	10	10	Amps
Continuous Collector Current	5	5	5	Amps
Continuous Base Current	2	2	2	°C
Storage Temperature		-65 to 200		°C
Operating Junction Temperature		-55 to 200		Watts
Dissipation at 100°C Case	5	5	5	W/°C
Linear Derating Factor	.05	.05	.05	

ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CONDITIONS	TYPES	LIMIT		UNIT
			MIN.	MAX.	
I_{CEX}	$V_{CE} = 60V, V_{BE} = -0.5V, T_C = 150^{\circ}C$	All		100	μA
	$V_{CE} = \text{Maximum Collector-Base Voltage}$	All		10	μA
	$V_{BE} = -0.5V$				
I_{CBO}	$V_{CB} = 60V, I_E = 0$	All		0.1	μA
I_{EBO}	$V_{EB} = \Delta V$	All		10	μA
$BV_{CEO(sus)}^*$	$I_B = 0, I_C = 100mA$	PG1310 PG1313 PG1316 PG1311 PG1314 PG1317	50 70		Volts Volts

A P I ELECTRONICS INC

13 DE 0043592 0000106 8

ELECTRICAL CHARACTERISTICS @ 25°C (Continued)

SYMBOL	CONDITIONS	TYPES	LIMIT		UNIT
			MIN.	MAX.	
$V_{CEO(sus)}$	$I_B = 0, I_C = 100mA$	PG1312 PG1315 PG1318	100		Volts
h_{FE}^*	$I_C = 5A, V_{CE} = 5V$	PG1310 thru PG1312 PG1313 thru PG1315 PG1316 thru PG1318	20 40 100	60 120 300	
$V_{CE(sat)}^{*t}$	$I_C = 10A, I_B = 1A$	All		2.5	Volts
	$I_C = 5A, I_B = 0.5A$	All		0.6	Volts
$V_{BE(sat)}^{*t}$	$I_C = 10A, I_B = 1A$	All		2.5	Volts
	$I_C = 5A, I_B = 0.5A$	All		1.5	Volts
$ h_{fe} $	$V_{CE} = 10V, I_C = 0.2A, f = 10MHz$	All	1.5		

*Pulse measurement: $PW \leq 330 \mu sec$; 2% duty cycle.^t Measured within 1/4" of case. h_{FE} $V_{CE} = 6V$ $I_C = 10A$

PG1313

MIN

15

 h_{FE} $V_{CE} = 6V$ $I_C = 1A$

PG1310

20

 I_{CEO}

50V

100V