

1201

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10 AMP NPN PLANAR

- o TO-61
- o 60 MHz (typical)
- o 40 WATT @ 25°C
- o PREMIUM GRADE

MAXIMUM RATINGS @ 25°C AMBIENT

RATING	PG1335			UNIT
	2N2811	2N2813	PG1336	
	2N2812	2N2814	PG1337	
Collector-Base Voltage	80	120	120	Volts
Emitter-Base Voltage	8	8	8	Volts
Collector-Emitter Voltage	50	70	100	Volts
Collector Current	10	10	10	Amps
Base Current	2	2	2	Amps
Thermal Resistance, θ_{jc}	2.5	2.5	2.5	°C/W
Dissipation @ 100°C Case	40	40	40	Watts
Operating Junction Temperature	-65 to 200			°C
Storage Temperature Range	-65 to 200			°C

ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CONDITIONS	TYPES	LIMIT		UNIT
			MIN.	MAX.	
h_{FE}^*	$I_C = .01A, V_{CE} = 5V$	All	10		
	$I_C = 5A, V_{CE} = 5V$	PG1335	20	60	
		PG1336	40	120	
		PG1337	100	300	
	$I_C = 10A, V_{CE} = 5V$	PG1335	10		
		PG1336	15		
		PG1337	20		
$I_C = 5A, V_{CE} = 5V, T_C = -55°C$		PG1335	10		
	PG1336	15			
	PG1337	20			
$V_{CE(sat)}^*$	$I_C = 5A, I_B = 0.5A$	All		0.5	Volts
	$I_C = 10A, I_B = 1A$	All		1.5	Volts
V_{BE}^*	$I_C = 5A, V_{CE} = 5V$	All		1.2	Volts

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PG-1335-1X

ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CONDITIONS	TYPES	LIMIT		UNIT
			MIN.	MAX.	
V _{BE(sat)} *	I _C = 5A, I _B = 0.5A	All		1.2 ✓	Volts
	I _C = 10A, I _B = 1A	All		2.0 ✓	Volts
BV _{CBO}	I _C = 10μA, I _E = 0	PG1335 PG1336 PG1337	120 ✓		Volts
BV _{ECO} CEO	I _C = 100mA, I _B = 0	PG1335 PG1336 PG1337	100 ✓		Volts
BV _{EBO}	I _E = 10μA, I _C = 0	All	8 ✓		Volts
I _{CEX}	V _{BE} = -0.5V, V _{CE} = BV _{CBO}	All		10 ✓	μA
	V _{BE} = -0.5V, V _{CE} = 60V, T _C = 150°C	All		100 ✓	μA
I _{CBO}	V _{CB} = 60V, I _E = 0	All		0.1 ✓	μA
I _{CEO}	V _{CE} = 50V, I _B = 0	All		100 ✓	μA
I _{EBO}	V _{EB} = 5V, I _C = 0	All		10 ✓	μA
h _{fe}	V _{CE} = 10V, I _C = 1A, f = 10MHz	All	1.5		
h _{fe}	V _{CE} = 5V, I _C = 50mA, f = 1KHz	PG1335 PG1336 PG1337	100	300	
C _{ob}	V _{CB} = 10V, I _E = 0.1A, f = 1MHz	All		350	pf

*Pulse measurement: PW ≤ 330 μsec; ≤ 2% duty cycle.

pg--1335-2x