

INTERIM BULLETIN

Subject to Revision Without Notice

-July 20, 1971

POWER TRANSISTOR
ENGINEERING BULLETINTYPE PG1212 thru PG1223, 5 AMP NPN
SILICON PLANAR POWER TRANSISTORS

- TO-66
- 70 MHz (typical)
- 20 WATTS @ 100°C

MAXIMUM RATINGS @ 25°C AMBIENT (Unless otherwise noted)

RATING	PG1212	PG1213	PG1214	PG1215	UNIT
	PG1216	PG1217	PG1218	PG1219	
	PG1220	PG1221	PG1222	PG1223	
Collector-Base Voltage	60	80	100	120	Volts
Emitter-Base Voltage	6	6	6	6	Volts
Collector-Emitter Voltage	40	60	80	100	Volts
Collector Current	5	5	5	5	Amps
Base Current	0.5	0.5	0.5	0.5	Amps
Storage Temperature		-65 to 200			°C
Operating Junction Temperature		-65 to 200			°C
Dissipation @ 100°C Case	20	20	20	20	Watts
Linear Derating Factor	200	200	200	200	mW/°C

ELECTRICAL CHARACTERISTICS @ 25°C Case Temp. (Unless otherwise noted)

SYMBOL	CONDITIONS	TYPES	LIMIT		UNIT
			MIN.	MAX.	
BV_{CBO}	$I_{CBO} = 10\mu A$	PG1212	60		Volts
		PG1216			
		PG1220			
		PG1213	80		Volts
		PG1217			
		PG1221			
		PG1214	100		Volts
		PG1218			
		PG1222			
		PG1215	120		Volts
		PG1219			
		PG1223			
BV_{EBO}	$I_{EBO} = 10\mu A$	All	6		Volts
I_{CEX}	$V_{CE} = 40V, V_{BE} = -0.5V, T_C = 150^\circ C$	All		50	μA

PIRGO ELECTRONICS INC.

A Sprague Electric Company Subsidiary
Pembroke Road, Concord, N.H. 03301

pg -- 12/2-1X

TYPE P 1212 thru P 1223, 5 AMP NPN
SILICON PLANAR POWER TRANSISTORSENGINEERING
BULLETIN
31,522

ELECTRICAL CHARACTERISTICS @ 25°C (Continued)

SYMBOL	CONDITIONS	TYPES	LIMIT		UNIT
			MIN.	MAX.	
I_{CEX}	$V_{CE} = BV_{CBO}, V_{BE} = -0.5V$	All		10	μA
I_{CBO}	$V_{CB} = 50V, I_E = 0$	All		10	μA
I_{EBO}	$V_{EB} = 6V$	All		10	μA
$BV_{CEO(sus)}^*$	$I_C = 100mA, I_B = 0$	PG1212	40		Volts
		PG1216			
		PG1220			
		PG1213	60		Volts
		PG1217			
		PG1221			
		PG1214	80		Volts
		PG1218			
		PG1222			
		PG1215	100		Volts
		PG1219			
		PG1223			
I_{CEO}	$V_{CE} = 30V, I_B = 0$	All		100	μA
h_{FE}^*	$I_C = 1A, V_{CE} = 5V$	PG1212	20	60	
		thru			
		PG1215			
		PG1216	40	120	
		thru			
		PG1219			
		PG1220	100	300	
		thru			
		PG1223			
$V_{CE(sat)}^*$	$I_C = 1A, I_B = 100mA$	All		0.5	Volts
$V_{BE(sat)}^*$	$I_C = 1A, I_B = 100mA$	All		2.0	Volts
$ h_{fe} $	$V_{CE} = 10V, I_C = 1A, f = 10 \text{ MHz}$	PG1212	2		
		thru			
		PG1215			
		PG1216	3		
		thru			
		PG1219			
		PG1220	3		
		thru			
		PG1223			
C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1 \text{ MHz}$	All		150	pf

*Pulse Test: $PW \leq 330 \mu s$; 2% duty cycle.

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PG-1212-21
Litho in U.S. Amer.