

## INTERIM BULLETIN

Subject to Revision Without Notice

-July 15, 1971

POWER TRANSISTOR  
ENGINEERING BULLETINTYPE PG1018 thru PG1035, 2 AMP NPN  
SILICON PLANAR POWER TRANSISTORS

• TO-46

• 90 HMz (typical)

• 4 WATTS @ 100° C

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

RATING	PG1018 PG1024 PG1030	PG1019 PG1025 PG1031	PG1020 PG1026 PG1032	PG1021 PG1027 PG1033	PG1022 PG1028 PG1034	PG1023 PG1029 PG1035	UNIT
Collector-Base Voltage	80	100	120	140	150	170	Volts
Collector-Emitter Voltage	60	80	100	120	140	160	Volts
Emitter-Base Voltage	6	6	6	6	6	6	Volts
Collector Current	2	2	2	2	2	2	Amps
Base Current	0.5	0.5	0.5	0.5	0.5	0.5	Amps
Storage Temperature			-65 to 200				°C
Operating Junction Temp.			-65 to 200				°C
Dissipation @ 100° C Case	4	4	4	4	4	4	Watts
Linear Derating Factor	40	40	40	40	40	40	mW/°C

ELECTRICAL CHARACTERISTICS @ 25° C CASE TEMPERATURE (Unless otherwise noted.)

SYMBOL	CONDITIONS	TYPES	MIN.	MAX.	UNIT
$I_{CEX}$	$V_{CE} = 60V, V_{BE} = -0.5V, T_C = 150^\circ C$	All		10	$\mu A$
$I_{CEX}$	$V_{CE} = \text{MAX RATING}, V_{BE} = -0.5V$	All		10	$\mu A$
$I_{CBO}$	$V_{CB} = 60V, I_E = 0$	All		10	$\mu A$
$I_{EBO}$	$V_{EB} = 6V$	All		10	$\mu A$
$BV_{CEO} \text{ (sus)*}$	$I_B = 0, I_C = 10mA$	All	Max. Rating		Volts
$I_{CEO}$	$I_B = 0, V_{CE} = 60V$	All		100	$\mu A$
$h_{FE}^*$	$I_C = 0.5A, V_{CE} = 5V$	PG1018 thru PG1023	30	90	

PIRGO ELECTRONICS INC.

A Sprague Electric Company Subsidiary

Pembroke Road, Concord, N.H. 03301

PG--1018-1X

TYPE P 1018 thru P 1035, 2 AMP NPN  
SILICON PLANAR POWER TRANSISTORSENGINEERING  
BULLETIN  
31,514

## ELECTRICAL CHARACTERISTICS @ 25° C (Continued)

SYMBOL	CONDITIONS	TYPES	LIMIT		UNIT
			MIN.	MAX.	
$h_{FE}^*$	$I_C = 0.5A, V_{CE} = 5V$	PG1024 thru PG1029 PG1030 thru PG1035	50	150	
$V_{CE(sat)}^*$	$I_C = 0.5A, I_B = 50mA$	All		0.35	Volts
$V_{BE}^*$	$I_C = 0.5A, V_{CE} = 5V$	All		2.0	Volts
$ h_{fe} $	$V_{CE} = 10V, I_C = 0.1A, f = 10MHz$	All	3		
$C_{ob}$	$V_{CB} = 10V, I_C = 0, f = 1 MHz$	All		50	pf

\*Pulsed measurement:  $PW \leq 330 \mu sec$ ;  $\leq 2\%$  duty cycle.

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PG--1018-2X