

INTERIM BULLETIN

Subject to Revision Without Notice

-July 20, 1971

POWER TRANSISTOR
ENGINEERING BULLETIN

10 AMP NPN PLANAR

TO-3

PREMIUM GRADE

65 WATTS at 100°C

60 MHZ (typical)

MAXIMUM RATINGS at 25°C AMBIENT

RATING				UNITS
	PG1380 PG1381	PG1382 PG1383	2N4070 PG1384 PG1385 PG1386	
Collector-Base Voltage	80	120	120	Volts
Emitter-Base Voltage	8	8	8	Volts
Collector-Emitter Boltage	50	70	100	Volts
Collector Current	10	10	10	Amps
Base Current	5	5	5	Amps
Storage Temperature		-65 to 200		°C
Operating Jct. Temp		-65 to 200		°C
Lead Temp 1/32" from Case for 10 seconds	235	235	235	°C
Dissipation at 100°C Case	65	65	65	Watts
Linear Derating Factor	0.65	0.65	0.65	W/°C

ELECTRICAL CHARACTERISTICS at 25°C

SYMBOL	CONDITIONS	TYPES	LIMIT		UNIT
			MIN	MAX	
I_{CEX}	$V_{CE}=60V, V_{BE}=-0.5V, T_C=150^\circ C$	All		0.1	mA
	$V_{CE}=\text{Max Collector-Base Voltage, All}$			10	μA
	$V_{BE}=-0.5V$				
I_{CBO}	$V_{CB}=\text{Max Collector-Base Voltage, All}$			10	μA
	$I_E=0$				
	$V_{CB}=60V, I_E=0$	All		0.1	μA
I_{EBO}	$V_{EB}=8V$	All		10	μA
$BV_{CEO(sus)*}$	$I_C=100mA, I_B=0$	PG1380	50		Volts
		PG1381			
		PG1382	70		Volts
		PG1383			
		PG1384	100		Volts
		PG1385 PG1386			

PIRGO ELECTRONICS INC.

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

PG-1380-1X

PG1380 thru PG1386



D

ELECTRICAL CHARACTERISTICS at 25°C (Continued)

SYMBOL	CONDITIONS	TYPES	LIMIT		UNIT
			MIN	MAX	
I_{CEO}	$I_B=0, V_{VE}=50V$			0.1	mA
h_{FE}^*	$I_C=10A, V_{CE}=5V$	PG1380	10		
		PG1382			
		PG1384			
		PG1381	15		
		PG1383			
	$I_C=5A, V_{CE}=5V$	PG1385			
		PG1386	20		
		PG1380	20	60	
		PG1382			
		PG1384			
		PG1381	40	120	
		PG1383			
		PG1385			
		PG1386	100	300	
		PG1380		2.5	Volts
		PG1382			
		PG1384			
		All Others		1.5	Volts
		All		0.6	Volts
V_{BE}^*	$I_C=5A, V_{CE}=5V$	All		1.2	Volts
h_{fe}	$V_{CE}=10V, I_C=7A, f=10MHz$	2			
	$V_{CE}=10V, I_C=50mA, f=1MHz$	PG1380	20		
C_{ob}	$V_{CE}=10V, I_C=0, f=1MHz$	PG1382			
		PG1384			
		PG1381	40		
		PG1383			
		PG1385			
		PG1386	100		
ton	See Circuit No. 1	All		200	pf
		All		.5	$\mu sec.$
		All		1.2	$\mu sec.$
ts	See Circuit No. 1	All			
tf	See Circuit No. 1	All		.45	$\mu sec.$

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

PIRGO ELECTRONICS INC.

A Sprague Electric Company Subsidiary

PG--1380-2X