

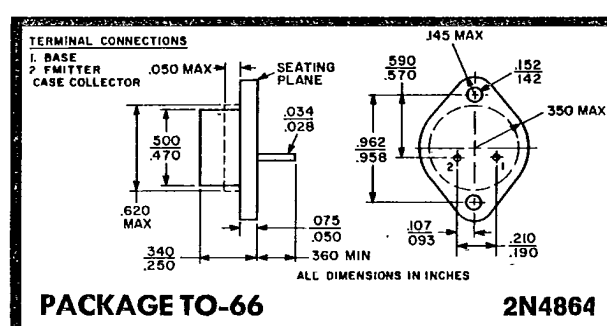
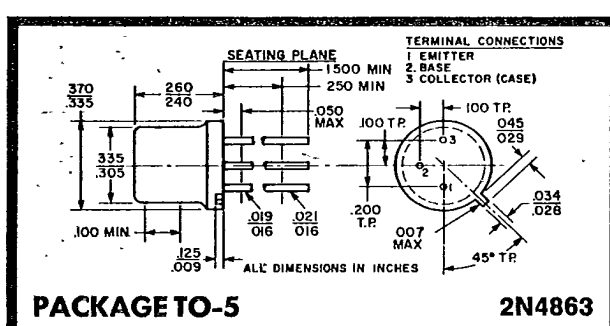
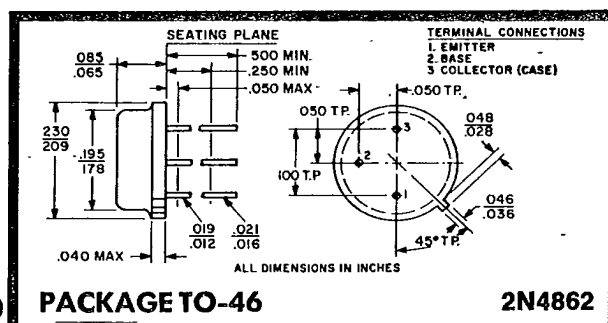


POWER TRANSISTORS
ENGINEERING BULLETIN

2N4862/2N4863/2N4864

TYPE 2N4862, 2N4863, 2N4864, 2 AMP NPN SILICON PLANAR POWER TRANSISTORS

LINEAR h_{FE} FROM 50 mA TO 2 AMPS
HIGH FREQUENCY $f_t = 50$ MHz (MINIMUM)
LOW SATURATION VOLTAGE AT MAXIMUM COLLECTOR CURRENT
HIGH VOLTAGE, $BV_{CEO(sus)} = 120$ VOLTS (MINIMUM)



ABSOLUTE MAXIMUM RATING 25°C AMBIENT (unless otherwise noted)

RATING	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	140	Volts
Emitter-Base Voltage	V_{EBO}	8	Volts
Collector-Emitter Voltage	V_{CEO}	120	Volts
Collector Current	I_C	2	Amps
Base Current	I_B	0.5	Amps
Storage Temperature	T_{STG}	-65 to 200	°C
Operating Junction Temperature	T_J	-65 to 200	°C
Dissipation at 100°C Case: 2N4862	P_D	4	Watts
2N4863	P_D	4	Watts
2N4864	P_D	16	Watts
Linear Derating Factor*: 2N4862		40	mW/°C
2N4863		40	mW/°C
2N4864		160	mW/°C

*See Figure No. 1.

PIRGO ELECTRONICS INC.
A SPRAGUE ELECTRIC COMPANY AFFILIATE
130 CENTRAL AVENUE
FARMINGDALE, NEW YORK 11735

2240

2 AMP NPN SILICON PLANAR

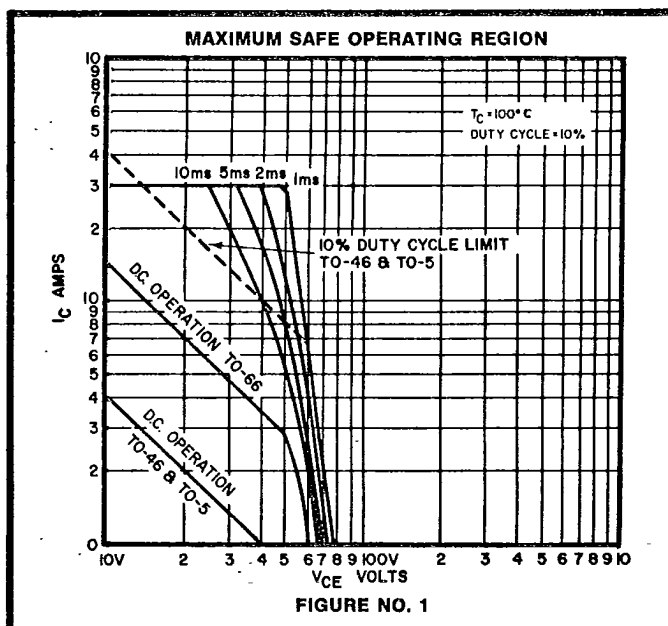
31510

2 AMP NPN SILICON PLANAR

POWER TRANSISTORS

ELECTRICAL CHARACTERISTICS (25°C Case temperature unless otherwise noted)

SYMBOL	CONDITIONS	LIMIT		UNIT
		MIN.	MAX.	
I_{CEX}	$V_{CE} = 60 \text{ V}$, $V_{BE} = -0.5 \text{ V}$, $T_C = 150^\circ\text{C}$		10	μA
I_{CEX}	$V_{CE} = 140 \text{ V}$, $V_{BE} = -0.5 \text{ V}$		10	μA
I_{CBO}	$V_{CB} = 60 \text{ V}$, $I_E = 0$		0.1	μA
I_{EDO}	$V_{EB} = 8 \text{ V}$		10	μA
$BV_{CE0(100)}^*$	$I_B = 0$, $I_C = 10 \text{ mA}$	120		Volts
I_{CEO}	$I_B = 0$, $V_{CE} = 60 \text{ V}$		10	μA
h_{FE}^*	$I_C = 2 \text{ A}$, $V_{CE} = 5 \text{ V}$	15		
	$I_C = 0.5 \text{ A}$, $V_{CE} = 5 \text{ V}$	50	150	
$V_{CE(sat)}^*$	$I_C = 2 \text{ A}$, $I_B = 0.2 \text{ A}$		1.5	Volts
	$I_C = 0.5 \text{ A}$, $I_B = 50 \text{ mA}$		0.2	Volts
V_{BE}^*	$I_C = 0.5 \text{ A}$, $V_{CE} = 5 \text{ V}$		1.2	Volts
$ h_{fe} $	$V_{CE} = 10 \text{ V}$, $I_C = 0.1 \text{ A}$, $f = 10 \text{ MHz}$	5		
h_{fe}	$V_{CE} = 5 \text{ V}$, $I_C = 50 \text{ mA}$, $f = 1 \text{ KHz}$	50		
C_{ob}	$V_{CB} = 10 \text{ V}$, $I_C = 0$, $f = 1 \text{ MHz}$		50	pf

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

2241

Information furnished by PIRGO is believed to be accurate and reliable. However, no responsibility is assumed by PIRGO for its use; nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of PIRGO.

FOR ADDITIONAL INFORMATION, CONTACT YOUR LOCAL SPRAGUE SALES ENGINEER.