

NPN SILICON MICROWAVE POWER TRANSISTORS

PRODUCT DATA SHEET

FEATURES:

- High Gain Bandwidth Product
 $f_t = 3.0 \text{ GHz typ @ } I_C = 1.0 \text{ A}$



- High Gain
 $G_{PE} = 8.0 \text{ dB @ } 1.0 \text{ GHz}$
- High thermal efficiency BeO 6 Lead Flange package

PERFORMANCE DATA:

- Electrical Characteristics ($T_A = 25^\circ\text{C}$)

DESCRIPTION AND APPLICATIONS:

Bipolarics' BPT0336 are high performance silicon bipolar transistors intended for medium and high power, linear and CW applications to 1.0 GHz. High f_t and high breakdown voltages make the BPT0336 an excellent choice for many 12V and 24V communication systems.

Absolute Maximum Ratings:

SYMBOL	PARAMETERS	RATING	UNITS
V_{CES}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	3.5	V
I_C	Collector Current	1.6	mA
T_J	Junction Temperature	200	$^\circ\text{C}$
T_{STG}	Storage Temperature	-65 to 200	$^\circ\text{C}$

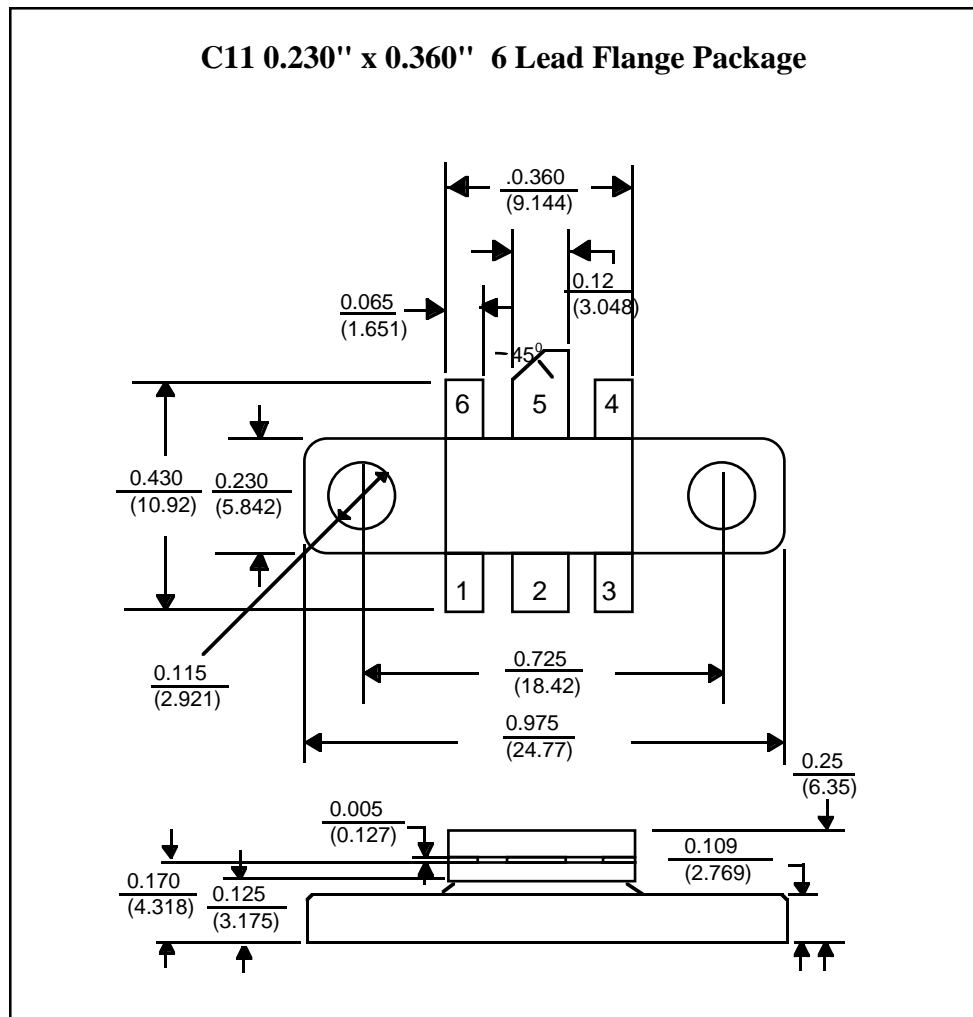
θ_{JC}	Thermal Resistance	4.2	C/W
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SYMBOL	PARAMETERS & CONDITIONS	UNIT	MIN.	TYP.	MAX.
	$V_{CE} = 24\text{V}, I_C = 1.3 \text{ A}, \text{Class A, Common Emitter unless stated}$				
P_{1dB}	Output Power at 1dB compression			10.0	
	$f = 1.0 \text{ GHz}$	W			
G_{PE}	Class A $P_{OUT} = 10\text{W}$			8.0	
	$f = 1.0 \text{ GHz}$	dB			
η	Efficiency:			30	
	Class A	%			
h_{FE}	Forward Current Transfer Ratio:		20	40	100
	$V_{CE} = 8.0\text{V}, I_C = 200 \text{ mA}$				
C_{CB}	Collector Base Capacitance:			18.0	
	$f = 1.0 \text{ MHz}$	pF			
	$I_E = 0$				
P_T	Total Power Dissipation	W			30

BIPOLARICS, INC

Part Number BPT0336

SILICON MICROWAVE POWER TRANSISTOR



Drawings are not to scale.

LEAD	1	2	3	4	5	6
-C11 Package	Emitter	Base	Emitter	Emitter	Collector	Emitter

NOTES: (unless otherwise specified)

- Dimensions are $\frac{\text{in}}{\text{mm}}$
- Tolerances:
in .xxx = $\pm .005$
mm .xx = $\pm .13$
- All dimensions nominal; subject to change without notice

BIPOLARICS INC.
 46766 Lakeview Blvd.
 Fremont, CA 94538
 Phone: (510)226-6565 FAX: (510) 226-6765