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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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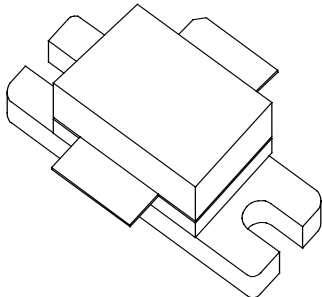
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





## ITC1100

### 1000 WATT, 50V, Pulsed Avionics 1030 MHz

<p><b>GENERAL DESCRIPTION</b></p> <p>The ITC1100 is a common base bipolar transistor. It is designed for pulsed interrogator systems in the frequency band of 1030 MHz. The device has gold thin-film metallization for proven high MTF. The transistor includes input returns for improved output rise time. Low thermal resistance package reduces junction temperature which extends the life time of the product.</p>	<p><b>CASE OUTLINE</b> <b>55SW, Style 1</b> <b>Common Base</b></p> 
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p><b>Power Dissipation</b></p> <p>Device Dissipation<sup>1</sup> @25°C (P<sub>d</sub>)                      3400 W  Thermal Resistance<sup>1</sup> (θ<sub>JC</sub>)                                .08°C/W</p> <p><b>Voltage and Current</b></p> <p>Collector-Base Voltage                                      65V  Emitter-Base Voltage                                        3.5V  Collector Current<sup>1</sup>    80A</p> <p><b>Temperatures</b></p> <p>Storage Temperature                                        -40 to +150°C  Operating Junction Temperature<sup>1</sup>                        +200°C</p>	

#### ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
BV <sub>ebo</sub> <sup>2</sup>	Emitter-Base Breakdown(open)	I <sub>c</sub> =50mA	3.5			V
BV <sub>ces</sub>	Collector-Emitter Breakdown(shorted)	I <sub>c</sub> =30mA	65			V
BV <sub>ceo</sub> <sup>2</sup>	Collector-Emitter Breakdown (open)	I <sub>c</sub> =30mA	30			V
h <sub>FE</sub> <sup>2</sup>	DC Current Gain	I <sub>c</sub> =5A, V <sub>ce</sub> =5V	20		100	β

#### FUNCTIONAL CHARACTERISTICS @ 25°C

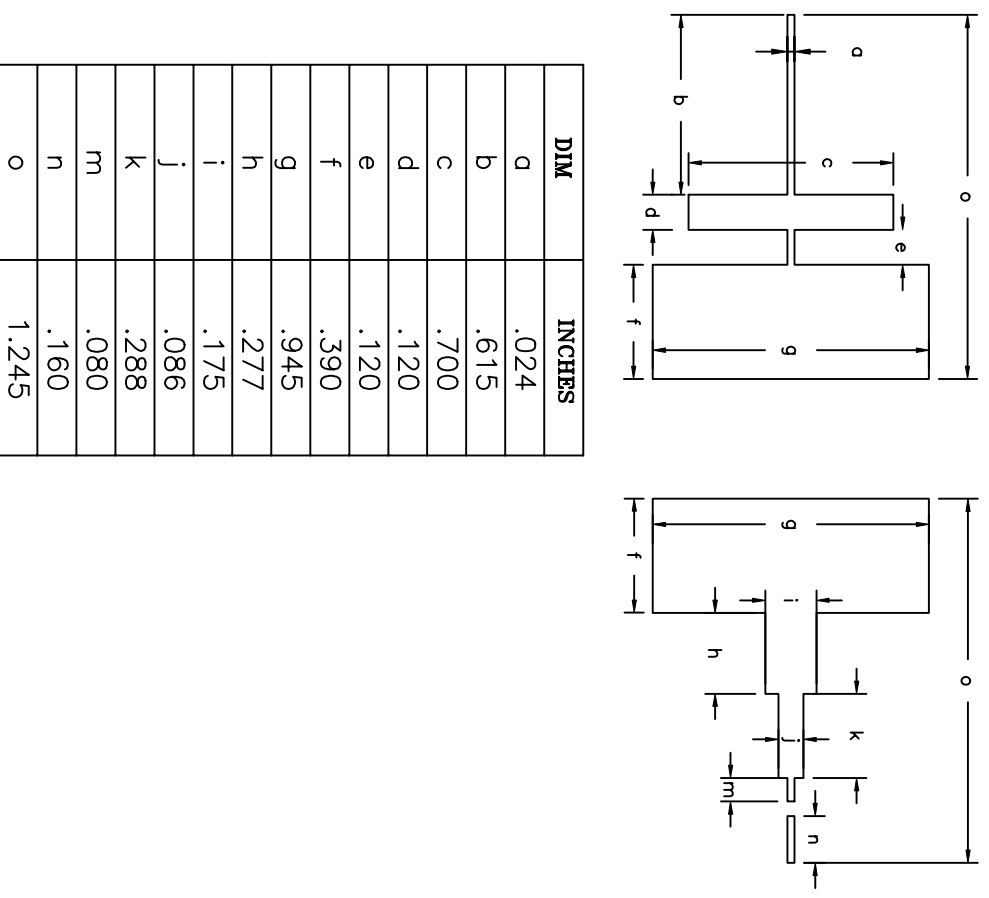
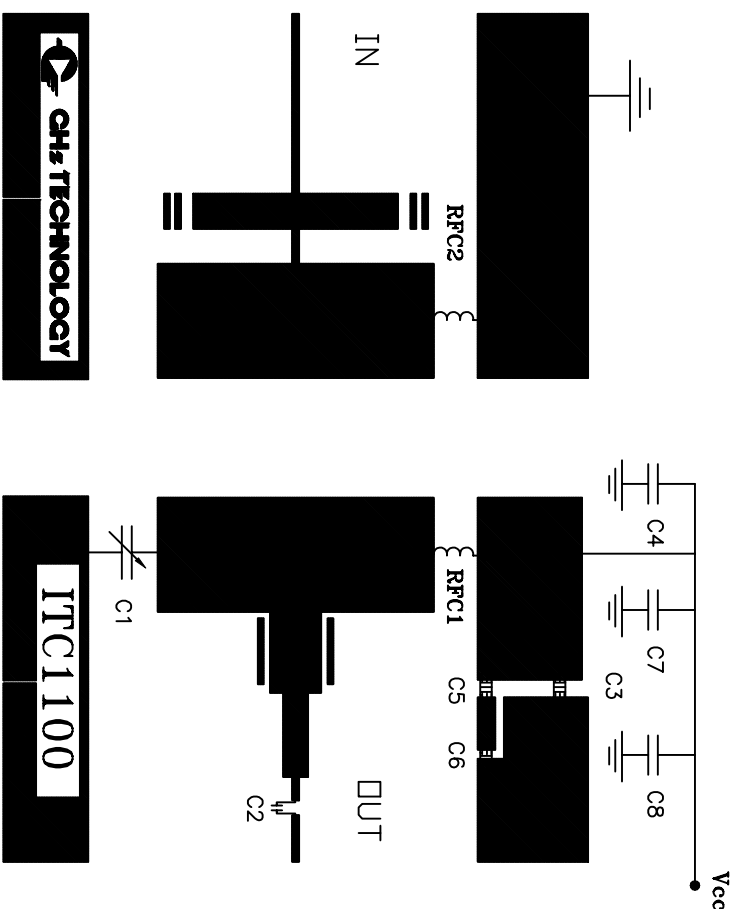
G <sub>PB</sub>	Common Base Power Gain	V <sub>cc</sub> = 50V, F = 1030MHz, P <sub>out</sub> =1000W Peak Min, PW=1μS, DF=1%	10	10.5		dB
η <sub>c</sub>	Collector Efficiency	V <sub>cc</sub> = 50V, F = 1030MHz, P <sub>out</sub> =1000W Peak Min, PW=1μS, DF=1%	45	50		%
t <sub>r</sub>	Rise Time	V <sub>cc</sub> = 50V, F = 1030MHz, P <sub>out</sub> =1000W Peak Min, PW=1μS, DF=1%		50	80	nS
VSWR	Output Load Mismatch	V <sub>cc</sub> = 50V, F = 1030MHz, P <sub>out</sub> =1000W Peak Min, PW=1μS, DF=1%			4:1	Ψ
Z <sub>in</sub>	Series Input Impedance (Circuit source impedance @ test cond.)	V <sub>cc</sub> = 50V, F = 1030MHz, P <sub>out</sub> =1000W Peak Min, PW=1μS, DF=1%	0.89 – j2.3			Ω
Z <sub>out</sub>	Series Output Impedance (Circuit load impedance @ test cond.)	V <sub>cc</sub> = 50V, F = 1030MHz, P <sub>out</sub> =1000W Peak Min, PW=1μS, DF=1%	0.54 - j2.64			Ω

<sup>1</sup> At rated output power and pulse conditions

<sup>2</sup> Not measurable due to EB Returns

NOTES, UNLESS OTHERWISE SPECIFIED:

- ONLY THE ITEM DESCRIBED ON THIS DRAWING WHEN PROCURED FROM THE "APPROVED SUPPLIER LIST", IS APPROVED FOR USE IN THE APPLICATION SPECIFIED HEREON. A SUBSTITUTE ITEM SHALL NOT BE USED WITHOUT PRIOR TESTING AND APPROVAL BY GHZ.



DIM	INCHES
a	.024
b	.615
c	.700
d	.120
e	.120
f	.390
g	.945
h	.277
i	.175
j	.086
k	.288
m	.080
n	.160
o	1.245

RFC1 = 3T, 0.11" DIA, 16 AWG WIRE  
 RFC2 = .075"HAIR PIN, 0.2" HEIGHT, 16 AWG WIRE

C1 = 0 - 3.5 pf JOHANSON TRIMMING CAPACITOR

C2, C3 = 68 pf ATC

C4 = 1.0 uf, 50 V

C5, C6 = 4.7 uf, 50 V

C7,C8 = 1000 uf, 63 V ELECTROLYTIC CAPACITOR

Vcc = 50 V

TOLERANCES UNLESS OTHERWISE SPECIFIED  
 DIMS ±.01  
 .XXX ±.005  
 ANGLES ±5°

MATERIAL: DurodId

Er = 10.2  
 H = 25 mils  
 T = 1.0 Oz



3000 OAKHEAD VILLAGE DRIVE  
 SANTA CLARA, CA 95051-0808

ITC1100

APPROVALS SIGNATURES		DATE	CAGE CODE		REV
ORIGINATOR			A	OPJR2	1
CHECKED					
APPROVED					
PRODUCT ENG.					
MANUFACTURING					
QA					
MARKETING					
SALES					
NEXT ASST APPLICATION		USED ON	SCALE: N/A		SHEET: 6 OF 6