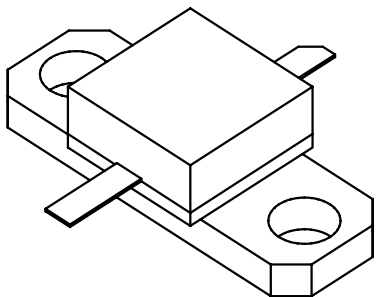


<p><b>GENERAL DESCRIPTION</b></p> <p>The 1014-2 is a COMMON BASE transistor capable of providing 2 Watts of Class C, RF Output Power over the band 1000-1400 MHz. This transistor is designed for Microwave Broadband Class C amplifier applications. It includes Input prematching and utilizes gold metalization and diffused ballasting to provide high reliability and supreme ruggedness.</p>	<p><b>CASE OUTLINE</b> <b>55LT, STYLE 1</b></p> 													
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p>Maximum Power Dissipation @ 25°C <span style="float: right;">9.7 Watts</span></p> <p><b>Maximum Voltage and Current</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">BVces</td> <td style="width: 45%;">Collector to Emitter Voltage</td> <td style="width: 40%; text-align: right;">50 Volts</td> </tr> <tr> <td>BVebo</td> <td>Emitter to Base Voltage</td> <td style="text-align: right;">3.5 Volts</td> </tr> <tr> <td>Ic</td> <td>Collector Current</td> <td style="text-align: right;">0.5 A</td> </tr> </table> <p><b>Maximum Temperatures</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 45%;">Storage Temperature</td> <td style="text-align: right;">- 65 to +150°C</td> </tr> <tr> <td>Operating Junction Temperature</td> <td style="text-align: right;">+200°C</td> </tr> </table>	BVces	Collector to Emitter Voltage	50 Volts	BVebo	Emitter to Base Voltage	3.5 Volts	Ic	Collector Current	0.5 A	Storage Temperature	- 65 to +150°C	Operating Junction Temperature	+200°C	
BVces	Collector to Emitter Voltage	50 Volts												
BVebo	Emitter to Base Voltage	3.5 Volts												
Ic	Collector Current	0.5 A												
Storage Temperature	- 65 to +150°C													
Operating Junction Temperature	+200°C													

### ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>Pout</b>	Power Out	F = 1000-1400 MHz	2			Watt
<b>Pin</b>	Power Input	Vcb = 28 Volts			0.35	Watt
<b>Pg</b>	Power Gain		7.5			dB
$\eta_c$	Collector Efficiency	As Above		45		%
<b>VSWR<sub>1</sub></b>	Load Mismatch Tolerance	Pout = 2 Watts			10:1	

<b>BVces</b>	Collector to Emitter Breakdown	Ic = 20 mA	50			Volts
<b>BVebo</b>	Emitter to Base Breakdown	Ie = 5 mA	3.5			Volts
<b>Icbo</b>	Collector to Base Current	Vcb = 28 Volts			0.5	mA
<b>h<sub>FE</sub></b>	Current Gain	Vce = 28 V, Ic = 100 mA	10		100	
<b>Cob</b>	Output Capacitance	Vcb = 25 V, f = 1 MHz			4.5	pF
<b>θjc</b>	Thermal Resistance	Tc = 25°C			18	°C/W

Rev B, Jan 2009

Microsemi reserves the right to change, without notice, the specifications and information contained herein. Visit our web site at [www.microsemi.com](http://www.microsemi.com) or contact our factory direct.