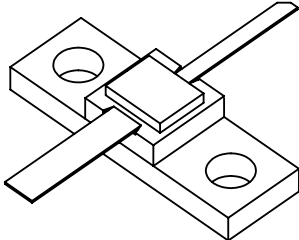


1014-6A

6 Watts, 28 Volts, Class C
Microwave 1000 - 1400 MHz

<p>GENERAL DESCRIPTION</p> <p>The 1014-6A is an internally matched, COMMON BASE transistor capable of providing 6 watts of CW RF Output power across the 1000-1400 MHz band. This transistor is specifically designed for microwave broadband applications. It utilizes gold metalization and diffused ballasting to provide high reliability and superior ruggedness.</p>	<p>CASE OUTLINE 55LV-1</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation Device Dissipation @ 25°C 19 W</p> <p>Maximum Voltage and Current Collector to Base Voltage (BV_{ces}) 50 V Emitter to Base Voltage (BV_{ebo}) 3.5 V Collector Current (I_c) 1.0 A</p> <p>Maximum Temperatures Storage Temperature -65 to +200 °C Operating Junction Temperature +200 °C</p>	

ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{out}	Power Output	F = 1150 MHz V _{cc} = 35 Volts Pulse width = 20 μs LTDF = 1%	6.0			W
P _{in}	Power Input				1.2	W
P _g	Power Gain		7.0	7.5		dB
η _c	Collector Efficiency			40		%
VSWR	Load Mismatch Tolerance				10:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

BV _{ebo}	Emitter to Base Breakdown	I _e = 3.0 mA	3.5			V
BV _{ces}	Collector to Emitter Breakdown	I _c = 25 mA	50			V
I _{cbo}	Collector Leakage Current	V _{cb} = 28 V		1.0		mA
C _{ob}	Capacitance	V _{cb} = 28 V, f = 1 MHz		6.5		pF
h _{FE}	DC – Current Gain	V _{ce} = 5V, I _c = 100 mA	20		100	
θ _{jc} ¹	Thermal Resistance				9.0	°C/W