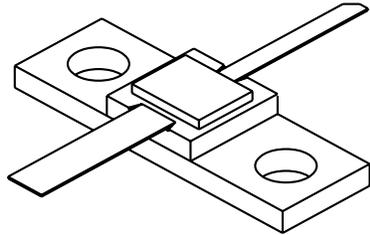


# 1415-7

7 Watts, 20 Volts, Class C  
Microwave 1430 - 1540 MHz

<p><b>GENERAL DESCRIPTION</b></p> <p>The 1415-7 is an internally matched, COMMON BASE transistor capable of providing 7 watts of CW RF Output power across the 1430-1540 MHz band. This transistor is specifically designed for telemetry and telecommunications applications. It utilizes gold metalization and diffused ballasting to provide high reliability and superior ruggedness.</p>	<p><b>CASE OUTLINE</b> <b>55LV, STYLE 1</b></p> 
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p>Maximum Power Dissipation @ 25°C <span style="float: right;">21 Watts</span></p> <p><b>Maximum Voltage and Current</b></p> <p>BVces Collector to Emitter Voltage <span style="float: right;">40 Volts</span>          BVebo Emitter to Base Voltage <span style="float: right;">3.5 Volts</span>          Ic Collector Current <span style="float: right;">1.2 Amps</span></p> <p><b>Maximum Temperatures</b></p> <p>Storage Temperature <span style="float: right;">- 65 to + 200°C</span>          Operating Junction Temperature <span style="float: right;">+ 200°C</span></p>	

## ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Output	F = 1540 MHz	7			Watt
Pin	Power Input	Vcc = 20Volts			1.4	
Pg	Power Gain		7.0	7.5		dB
ηc	Collector Efficiency			50		%
VSWR	Load Mismatch Tolerance				∞:1	

BVebo	Emitter to Base Breakdown	Ie = 4 mA	3.5			Volts
BVces	Collector to Emitter Breakdown	Ic = 20mA	40			Volts
Icbo	Collector Leakage Current	Vcb = 20 V		1.0		mA
Cob	Output Capacitance	Vcb= 20V, F=1 MHz		8.5		pF
Hfe	DC - Current Gain	Ic = 500 mA, Vce = 5V	20		100	
θjc	Thermal Resistance	TC = 25°C			8.0	°C/W

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