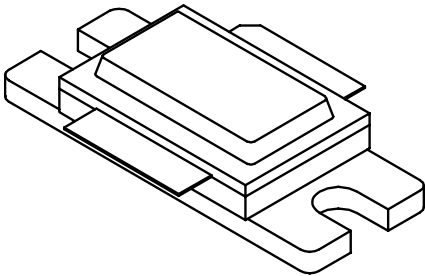




1214 – 450M

450 Watts - 50 Volts, 330 μ s, 10%
Radar 1200 - 1400 MHz

<p>GENERAL DESCRIPTION The 1214-450M is an internally matched, COMMON BASE transistor capable of providing 450 Watts of pulsed RF output power at 330 microseconds pulse width, ten percent duty factor across the band 1200 to 1400 MHz. This hermetically solder-sealed transistor is specifically designed for L-Band radar applications. It utilizes gold metallization and diffused emitter ballasting to provide high reliability and supreme ruggedness.</p>	<p>CASE OUTLINE 55ST, STYLE 1</p> 													
<p>ABSOLUTE MAXIMUM RATINGS Maximum Power Dissipation @ 25°C¹ 860 Watts</p> <p>Maximum Voltage and Current</p> <table border="0"> <tr> <td>BVces</td> <td>Collector to Emitter Voltage</td> <td>75 Volts</td> </tr> <tr> <td>BVebo</td> <td>Emitter to Base Voltage</td> <td>3.0 Volts</td> </tr> <tr> <td>Ic</td> <td>Collector Current</td> <td>25 Amps</td> </tr> </table> <p>Maximum Temperatures</p> <table border="0"> <tr> <td>Storage Temperature</td> <td>- 65 to + 200°C</td> </tr> <tr> <td>Operating Junction Temperature</td> <td>+ 200°C</td> </tr> </table>	BVces	Collector to Emitter Voltage	75 Volts	BVebo	Emitter to Base Voltage	3.0 Volts	Ic	Collector Current	25 Amps	Storage Temperature	- 65 to + 200°C	Operating Junction Temperature	+ 200°C	
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ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out (Note 2) Pulsed	F = 1200-1400 MHz Vcc = 50 Volts,	450		600	Watts
Pg	Power Gain	Pulse Width = 330 μ s	8.7	9.0		dB
η_c	Collector Efficiency	Duty = 10 %	50			%
Pd	Pulse Amplitude Droop	As above			0.5	dB

	Collector to Emitter Breakdown	Ic = 60 mA	75			Volts
	Collector to Emitter Leakage	Vce = 50 Volts			15	mA
	Emitter to Base Leakage Current	Veb = 3.0 Volts			45	mA
	DC Current Gain	Vce = 5 V, Ic = 1 A	10	45		
	Thermal Resistance	Rated Pulse Condition			0.20	°C/W

Note 1: Pulse width = 330 μ s, duty = 10%

Note 2: Power Input = 50 Watts Peak Pulsed

Microsemi reserves the right to make changes without further notice. Microsemi recommends that before the product(s) described herein are written into specifications, or used in critical applications, that the performance characteristics be verified by contacting the factory.

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