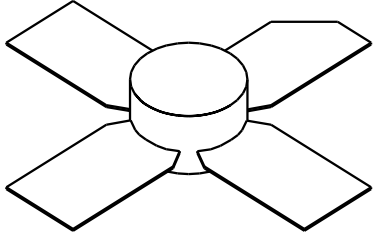

1004MP

4 Watts, 35 Volts, Pulsed
Avionics - 960-1215 MHz

<p>GENERAL DESCRIPTION</p> <p>The 1004MP is a COMMON BASE transistor capable of providing 4 Watts of Pulsed, RF output power in the band 960 to 1215 MHz. This transistor is specifically designed for pulsed Avionics amplifier applications. It utilizes gold metalization and low thermal resistance packaging to provide high reliability and supreme ruggedness.</p>	<p style="text-align: center;">CASE OUTLINE 55FU, STYLE 1 Common Base</p> <div style="text-align: center;">  </div>													
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 7 Watts</p> <p>Maximum Voltage and Current</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;">300 mAmps</td> </tr> </table> <p>Maximum Temperatures</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 45%;">Storage Temperature</td> <td style="text-align: right;">- 40 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	300 mAmps	Storage Temperature	- 40 to + 150°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	F = 1090 MHz	4.0	4.5		Watts
Pin	Power Input	Vcc = 35 Volts			0.5	Watts
Pg	Power Gain	PW = 10µs, DF = 1%	7.0	9.0		dB
ηc	Collector Efficiency		40	45		%
VSWR	Load Mismatch Tolerance				30:1	

BVebo	Emitter to Base Breakdown	Ie = 1 mA	3.5			Volts
BVces	Collector to Emitter Breakdown	Ic = 10 mA	50			Volts
hFE	DC Current Gain	Vce = 5 V, Ic = 100 mA	20			
Cob	Capacitance	Vcb = 28V, f = 1 MHz		3.3	5.0	pF
θjc	Thermal Resistance				25	°C/W

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