

MDS400

400 Watts Pk, 45 Volts, 32μs, 2% Avionics 1030-1090 MHz

GENERAL DESCRIPTION

The MDS400 is a COMMON BASE transistor capable of providing 400 Watts Peak, Pulsed, RF Output Power over the band 1030-1090 MHz. The transistor includes double input prematching for full broadband capability. Gold Metalization and Diffused Ballasting are used to provide high reliability and supreme ruggedness.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 1450 Watts

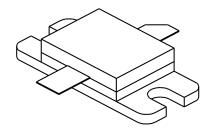
Maximum Voltage and Current

BVcesCollector to Emiter Voltage55 VoltsBVeboCollector to Base Voltage4.0 VoltsIcCollector Current40 Amps

Maximum Temperatures

Storage Temperature $-40 \text{ to} + 200^{\circ}\text{C}$ Operating Junction Temperature $+ 200^{\circ}\text{C}$

CASE OUTLINE 55KT, STYLE 1



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Po Pin	Power Out Power Input	F =1030/1090 MHz Vcc = 45 Volts	400		90	Watts Watts
Pg h VSWR ¹	Power Gain Efficiency Load Mismatch Tolerance	Pulse Width = 32μ s Duty Factor = 2 % At Rated Power	6.5	35	10:1	dB %

BVces BVebo	Collector to Emitter Breakdown Emitter to Base Breakdown	Ic = 50 mA Ie = 30 mA	55 3.5		Volts Volts
$egin{array}{c} \mathbf{H}_{\mathrm{fe}} \\ \mathbf{R} \mathbf{ heta} \mathrm{jc} \end{array}$	Current Gain Thermal Resistance	Vce = 5 V, Ic = 1 A $Tc = 25 °C$	10	0.12	°C/W

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