

MDS400

400 Watts Pk, 45 Volts, 32 μ s, 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

BVces Collector to Emitter Voltage 55 Volts

BVebo Collector to Base Voltage 4.0 Volts

Ic Collector Current 40 Amps

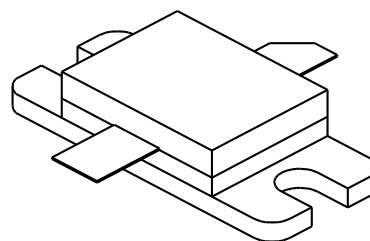
Maximum Temperatures

Storage Temperature -40 to + 200°C

Operating Junction Temperature + 200°C

CASE OUTLINE

55KT, STYLE 1



ELECTRICAL CHARACTERISTICS @ 25 °C

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

BVces	Collector to Emitter Breakdown	Ic = 50 mA	55			Volts
BVebo	Emitter to Base Breakdown	Ie = 30 mA	3.5			Volts
Hfe	Current Gain	Vce = 5 V, Ic = 1 A	10			
R θ jc	Thermal Resistance	Tc = 25 °C			0.12	°C/W

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