GHz TECHNOLOGY
RF·MICROWAVE SILICON POWER TRANSISTORS

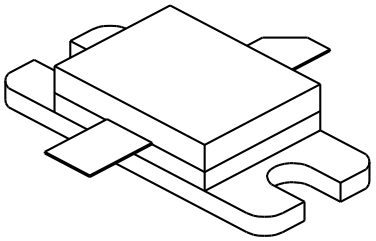
MDS400

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.

CASE OUTLINE
55KT, STYLE 1



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25ºC	1450 Watts
Maximum Voltage and Current	
BVces Collector to Emiter 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

ELECTRICAL CHARACTERISTICS @ 25 ºC

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 = 32μs	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
H_{fe}	Current Gain	Vce = 5 V, Ic = 1 A	10			
Rθjc	Thermal Resistance	Tc = 25 ºC			0.12	ºC/W

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GHz Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120