



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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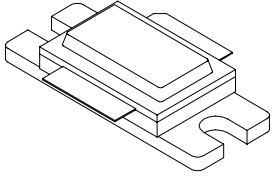
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MDS800

800 Watts, 50 Volts
Pulsed Avionics at 1090 MHz

<p>GENERAL DESCRIPTION</p> <p>The MDS800 is a high power COMMON BASE bipolar transistor. It is designed for pulsed systems at 1090 MHz, with the pulse width and duty required for MODE-S applications. The device has gold thin-film metalization and emitter ballasting for proven highest MTTF. The transistor includes input and output prematch for broadband capability. Low thermal resistance package reduces junction temperature, extends life.</p>	<p>CASE OUTLINE 55ST-1 (Common Base)</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation Device Dissipation @ 25°C¹ 1458 W</p> <p>Maximum Voltage and Current Collector to Base Voltage (BV_{ces}) 60 V Emitter to Base Voltage (BV_{ebo}) 3.5 V Collector Current (I_c) 60 A</p> <p>Maximum Temperatures Storage Temperature -65 to +200 °C Operating Junction Temperature +200 °C</p>	

ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{out}	Power Output	F = 1090 MHz	800			W
P _{in}	Power Input	V _{cc} = 50 Volts			110	
P _g	Power Gain	Burst width = 128µs	8.6			dB
η _c	Collector Efficiency	LTDF = 2%	40			%
R _L	Return Loss				-12	dB
P _d	Power Droop			0.5		dB
VSWR	Load Mismatch Tolerance ¹	F = 1090 MHz			4.0:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

BV _{ebo}	Emitter to Base Breakdown	I _e = 30 mA	3.5			V
BV _{ces}	Collector to Emitter Breakdown	I _c = 50 mA	65			V
h _{FE}	DC – Current Gain	V _{ce} = 5V, I _c = 1A	20			
θ _{jc} ¹	Thermal Resistance				0.12	°C/W

NOTES: 1. At rated output power and pulse conditions
2. 128 µs burst, 0.5 µs on/0.5 µs off, 6.4 ms period

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