

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!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









JTDB75

75 Watts, 36 Volts, Pulsed Avionics 960 - 1215 MHz

GENERAL DESCRIPTION

The JTDB75 is a high power COMMON BASE bipolar transistor. It is designed for pulsed systems in the frequency band 960-1215 MHz. The device has gold thin-film metallization and diffused ballasting for proven highest MTTF. The transistor includes input and output prematch for broadband capability. Low thermal resistance package reduces junction temperature, extends life.

CASE OUTLINE 55AW, Style 1

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation

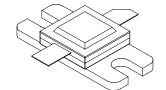
Device Dissipation @25°C² 220 W

Maximum Voltage and Current

 $\begin{array}{lll} \mbox{Collector to Base Voltage } (\mbox{BV}_{ces}) & 55 \ \mbox{V} \\ \mbox{Emitter to Base Voltage } (\mbox{BV}_{ebo}) & 3.5 \ \mbox{V} \\ \mbox{Collector Current } (\mbox{I}_c) & 8.0 \ \mbox{A} \\ \end{array}$

Maximum Temperatures

Storage Temperature -65 to +200 °C Operating Junction Temperature +200 °C



ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{out}	Power Out	F = 960-1215 MHz	75			W
P _{in}	Power Input	Vcc = 36 Volts			15	W
P_g	Power Gain	$PW = 10 \mu sec$, Note 1	7.0	8.2		dB
$\eta_{\rm c}$	Collector Efficiency	DF = 40%, Note 1		40		%
VSWR ¹	Load Mismatch Tolerance	F = 1090 MHz			3:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

$\mathrm{BV}_{\mathrm{ebo}}$	Emitter to Base Breakdown	Ie = 30 mA	3.5		V
BV_{ces}	Collector to Emitter Breakdown	Ic = 30 mA	55		V
h_{FE}	DC - Current Gain	Vce = 5V, Ic = 1A	20	100	
θjc^2	Thermal Resistance			0.8	°C/W

NOTE 1: At rated output power and pulse conditions

2. At rated pulse conditions

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