

BYI-1/1F/1T/1Z

BYISTORS FOR LINEAR
POWER AMPLIFIERS

GENERAL DESCRIPTION

The BYI-1/1F/1T/1Z is a semiconductor device specifically designed for use in linear amplifier bias circuitry. The byistor acts as a low impedance D.C. bias source which has two modes for thermal compensation.

CASE OUTLINE

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 11 Watts

Maximum Voltage and Current

BVces Collector to Emitter Voltage 55 Volts

BVebo Emitter to Base Voltage 4.0 Volts

Ic Collector Current 0.7 A

Maximum Temperatures

Storage Temperature - 65 to +150°C

Operating Junction Temperature +150°C

ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{out}	Power Output	F = 400 MHz	3			Watts
P_{in}	Power Input	V _{cc} = 28 Volts			0.2	Watts
P_g	Power Gain		11.8	13		dB
η_c	Efficiency			60		%
VSWR	Load Mismatch Tolerance				30:1	

BVebo	Emitter to Base Breakdown	I _e = 5 mA	4.0			Volts
BVces	Collector to Emitter	I _c = 20 mA	55			Volts
BVceo	Breakdown	I _e = 50 mA	30			Volts
BVcbo	Collector to Emitter	I _c = __ mA				Volts
Icbo	Breakdown	V _c = __ Volts				mA
Cob	Collector to Base Breakdown	V _{cb} = 28 V, F = 1		4.5		pF
h_{FE}	Collector to Base Current	MHz	10	45	150	
θ_{jc}	Output Capacitance	V _{ce} = 5 V, I _c = 100 A			16	°C/W
	DC - Current Gain					
	Thermal Resistance					

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Mouser Electronics

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