



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

## BYISTORS FOR LINEAR POWER AMPLIFIERS

<p><b>GENERAL DESCRIPTION</b></p> <p>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.</p>	<p><b>CASE OUTLINE</b></p>
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p>Maximum Power Dissipation @ 25°C                      11 Watts</p> <p><b>Maximum Voltage and Current</b></p> <p>BVces Collector to Emitter Voltage                      55 Volts</p> <p>BVebo Emitter to Base Voltage                              4.0 Volts</p> <p>Ic Collector Current    0.7 A</p> <p><b>Maximum Temperatures</b></p> <p>Storage Temperature    - 65 to +150°C</p> <p>Operating Junction Temperature                              +150°C</p>	

### ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>Pout</b>	Power Output	F = 400 MHz	3			Watts
<b>Pin</b>	Power Input	Vcc = 28 Volts			0.2	Watts
<b>Pg</b>	Power Gain		11.8	13		dB
<b>ηc</b>	Efficiency			60		%
<b>VSWR</b>	Load Mismatch Tolerance				30:1	

<b>BVebo</b>	Emitter to Base Breakdown	Ie = 5 mA	4.0			Volts
<b>BVces</b>	Collector to Emitter	Ic = 20 mA	55			Volts
<b>BVceo</b>	Breakdown	Ie = 50 mA	30			Volts
<b>BVcbo</b>	Collector to Emitter	Ic = __ mA				Volts
<b>Icbo</b>	Breakdown	Vc = __ Volts				mA
<b>Cob</b>	Collector to Base Breakdown	Vcb = 28 V, F = 1		4.5		pF
<b>hFE</b>	Collector to Base Current	MHz	10	45	150	
<b>θjc</b>	Output Capacitance	Vce = 5 V, Ic = 100 A			16	°C/W
	DC - Current Gain					
	Thermal Resistance					

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