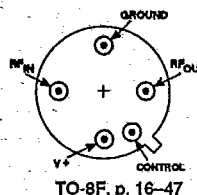


FEATURES

- < 1.6:1 VSWR
- 20 dB of Attenuation
- Negative Control Voltage

APPLICATIONS

- Open and Closed Loop Gain Compensation



TO-8F, p. 16-47

DESCRIPTION

The UTF-015 is a thin-film voltage-controlled RF attenuator that offers a continuously-variable attenuation of up to 20 dB from 5 to 1000 MHz. Utilizing PIN diodes, attenuation over frequency is typically ± 0.5 dB flat over the complete control

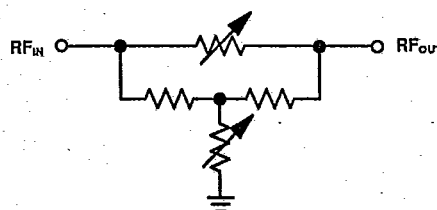
voltage range. On the average, the attenuation will change roughly 5 dB per 2-volt increment. The UTF-015 comes hermetically sealed in a TO-8 case.

ELECTRICAL SPECIFICATIONS (Measured in a 50-ohm system @ +15 VDC and -15 VDC nominal)

Symbol	Characteristic	Typical $T_o = 25^\circ\text{C}$	Guaranteed Specifications		Unit
			$T_o = 0^\circ$ to 50°C	$T_o = -55^\circ$ to $+85^\circ\text{C}$	
BW	Frequency Range	5-1000	5-1000	5-1000	MHz
—	Attenuation, Min. ($V_c = -10$ V)	20.0	15.0	—	dB
—	Insertion Loss, Max. ($V_c = 0$ V)				
	5-500 MHz	1.5	2.0	—	dB
	500-1000 MHz	2.0	2.5	—	dB
—	VSWR				
	(Worst Case in Attenuation Range)	1.5:1	2.0:1	—	—
—	Flatness Over Frequency	± 5	—	—	dB
—	Switching Speed (10% to 90%)	.5	—	—	ms
—	Bias Current	7	—	—	mA
—	Control Voltage	0 to -10	0 to -10	—	VDC
—	Control Current	0 to 7	—	—	mA

MAXIMUM RATINGS

DC Voltage +17/-15 Volts
 Continuous RF Input Power +23.0 dBm
 Operating Case Temperature -55°C to 125°C
 Storage Temperature -62°C to $+150^\circ\text{C}$
 "R" Series Burn-In Temperature $+125^\circ\text{C}$

SCHEMATIC**WEIGHT:** (typical) 2.1 grams

Avantek, Inc. • 451 Cottonwood Drive, Milpitas, CA 95035 • Contact your local representative, distributor or field sales office for further information. Listings are in the back of this Data Book.

T-74-09-01

TYPICAL PERFORMANCE AT 25°C

