

AH501...AH539

GaAs PIN

CONTROL DIODES

FEATURES

- Low series resistance
- Low insertion loss and high isolation performance
- TTL compatible
- Fast switching time

APPLICATIONS

- Medium power pulsed or CW switches, duplexers and phase shifters
- Attenuators and active or passive limiters
- Assembly on both hardboard and/or softboard substrates. Low cost automated assembly.

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DESCRIPTION

A wide family of Gallium Arsenide PIN diodes is available in package or chip form with silicon nitride passivation.

The intrinsic GaAs characteristics improve performances of these diodes for switching time, wide temperature characteristics, low forward resistance and low applied bias voltage.

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
CW power dissipation	P_{cw}		200	mW
Reverse voltage	V_R	Breakdown voltage		
Junction temperature	T_j	-65	+150	°C
Storage temperature range	T_{stg}	-65	+175	°C

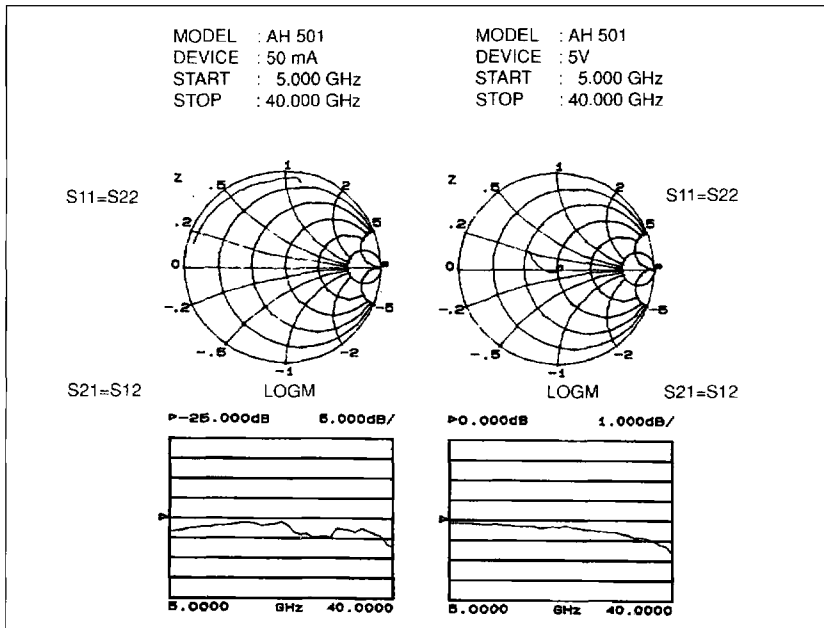


ELECTRICAL CHARACTERISTICS (T = +25°C)

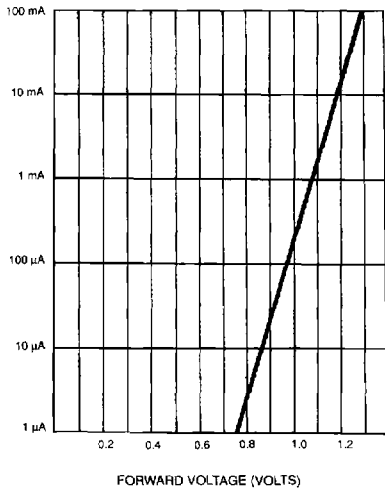
CHARACTERISTICS		C _{j0} ± 20%				(pf) V _R = 0V and F = 1MHz						
T _{case} = +25°C		0.03	0.05	0.07	0.1	0.14	0.22	0.3	0.4	0.6	0.8	
V _{BR}	V _{BR} ≥ 25 V			AH 501	AH 502	AH 503	AH 504	AH 505	AH 506	AH 507	AH 508	
	V _{BR} ≥ 40 V			AH 511	AH 512	AH 513	AH 514	AH 515	AH 516	AH 517	AH 518	
	V _{BR} ≥ 80 V	AH 521	AH 522	AH 523	AH 524	AH 525	AH 526	AH 527	AH 528	AH 529		
	V _{BR} ≥ 100 V	AH 531	AH 532	AH 533	AH 534	AH 535	AH 536	AH 537	AH 538	AH 539		
CASE *		M208b	M208b	M208b	M208b	M208b	M208b	M208b	M208b	M208b	M208b	

* Other case on request and available in chip form

TECHNICAL DATA

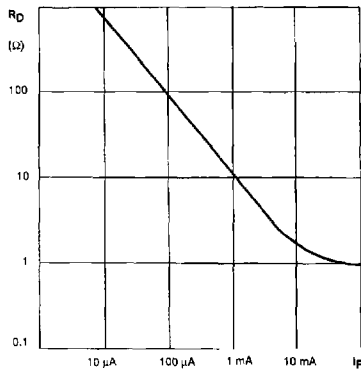


TECHNICAL DATA (Continued)



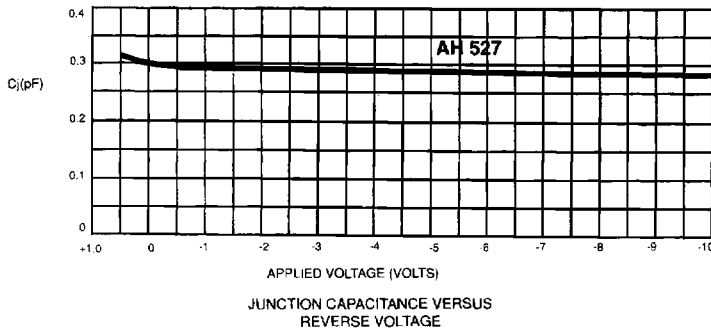
TYPICAL FORWARD CURRENT
VERSUS FORWARD VOLTAGE

AH 501



R_{diode} versus FORWARD CURRENT measured
between 2 to 40GHz

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JUNCTION CAPACITANCE VERSUS
REVERSE VOLTAGE

