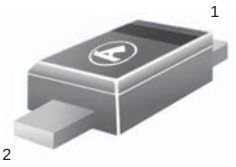
Variable Capacitance Diode for TV Tuner

HVC308A

FEATURES

- Low series resistance. (r_s=0.95Ωmax)
- Ultra small Flat Package (UFP) is suitable for surface mount design.



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DEVICE MARKING

HVC308A = V

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

Item	Symbol	Value	Unit
Reversevoltage	V_R	35	V
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	– 55 to +125	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I_{R1}	–	–	10	nA	V_R = 30V
	I_{R2}	–	–	100		V_R = 30V, T_A = 60°C
Capacitance	C_2	13.7	–	15.9	pF	V_R = 2V, f = 1 MHz
	C_{20}	1.65	–	2.06		V_R = 20V, f = 1 MHz
Capacitance ratio	n	7.12	–	–	–	C_2/ C_{20}
Series resistance	r_s	–	–	0.95	Ω	V_R = 5V, f = 470 MHz

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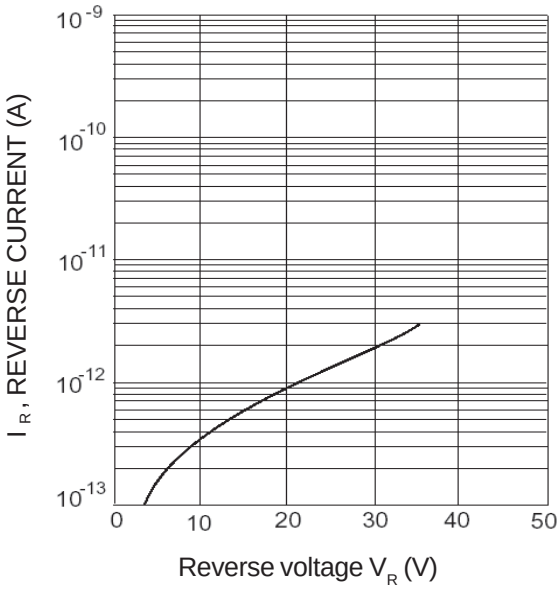

Fig.1 Reverse current Vs. Reverse voltage

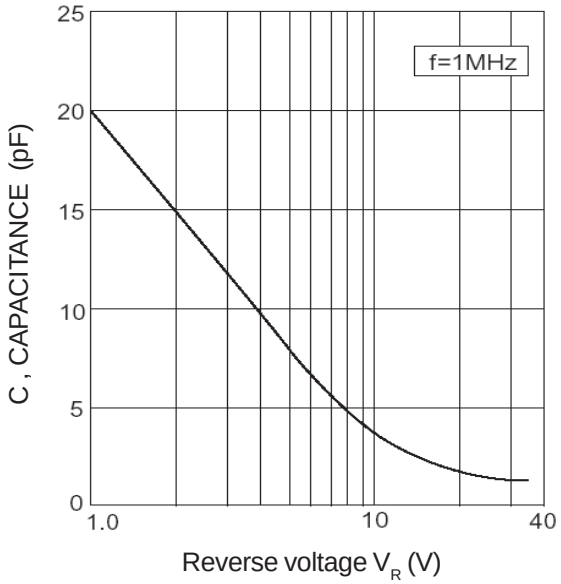

Fig.2 Capacitance Vs. Reverse voltage

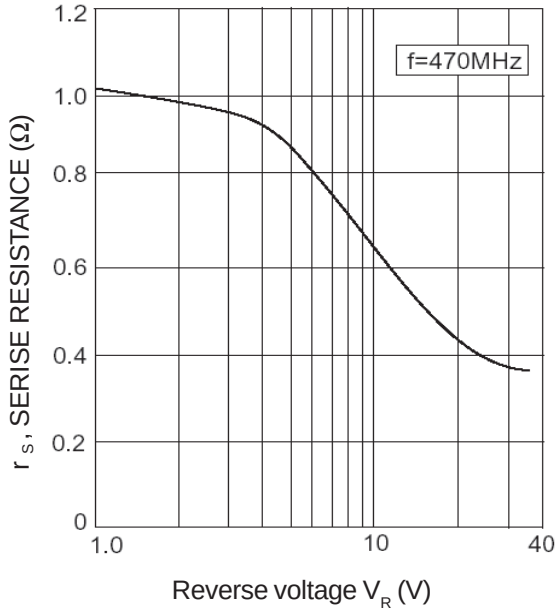

Fig.3 Series resistance Vs. Reverse voltage

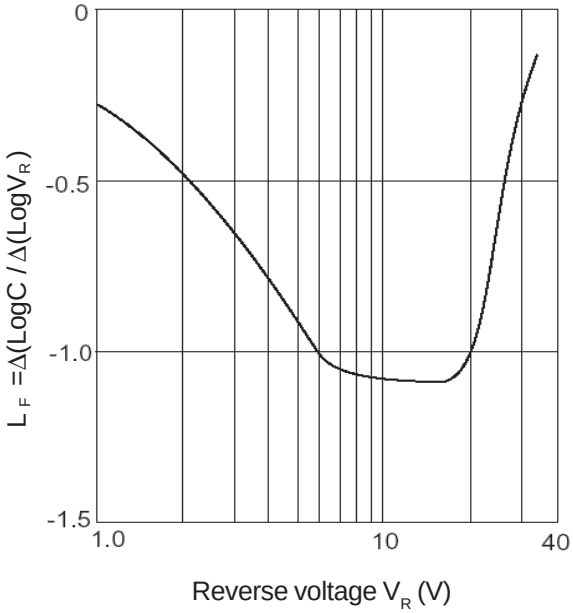

Fig.4 Linearity factor Vs. Reverse voltage