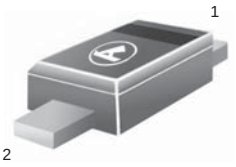
Variable Capacitance Diode for VCO

HVC350B

FEATURES

- High capacitance ratio. (n =2.8.min)
- Low series resistance. (r_s=0.5 max)
- Good C-V linearity.
- Ultra small Flat Package (UFP) is suitable for surface mount design.



SOD– 523

DEVICE MARKING

HVC350B = B0

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

Item	Symbol	Value	Unit
Reversevoltage	V_R	15	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 = 15V
	I_{R2}	–	–	100		V_R = 15V, T_A = 60°C
Capacitance	C_1	15.5	–	17.0	pF	V_R = 1V, f = 1 MHz
	C_4	5.0	–	6.0		V_R = 4V, f = 1 MHz
Capacitance ratio	n	2.8	–	–	–	C_1/ C_4
Series resistance	r_s	–	–	5.0	Ω	V_R = 1V, f = 470 MHz

HVC350B

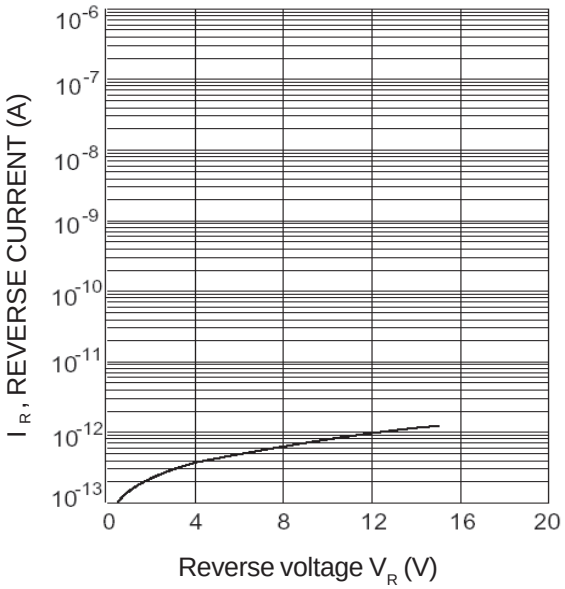


Fig.1 Reverse current Vs. Reverse voltage

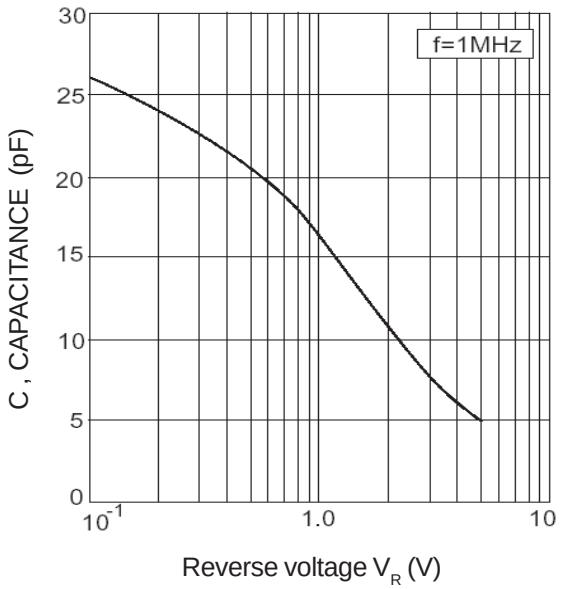


Fig.2 Capacitance Vs. Reverse voltage

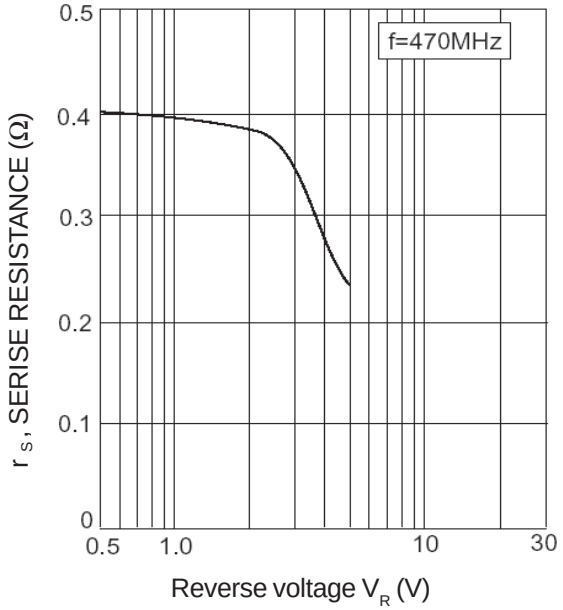


Fig.3 Series resistance Vs. Reverse voltage

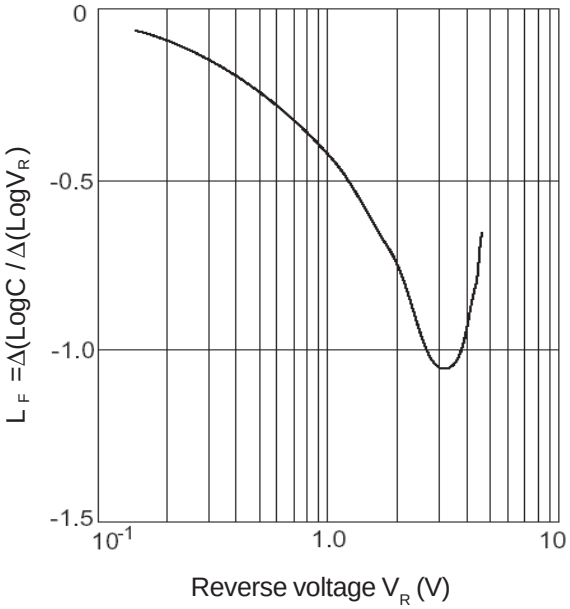


Fig.4 Linearity factor Vs. Reverse voltage