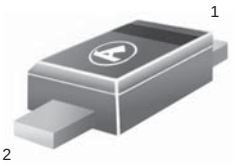
Variable Capacitance Diode for VCO

HVC355B



SOD– 523

FEATURES

- High capacitance ratio. (n =2.20.min)
- Low series resistance. (r_s=0.6 max)
- Good C-V linearity.
- Ultra small Flat Package (UFP) is suitable for surface mount design.

DEVICE MARKING

HVC355B = B1

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	6.40	–	7.20	pF	V_R = 1V, f = 1 MHz
	C_4	2.55	–	2.95		V_R = 4V, f = 1 MHz
Capacitance ratio	n	2.20	–	–	–	C_1/ C_4
Series resistance	r_s	–	–	0.6	Ω	V_R = 1V, f = 470 MHz

HVC355B

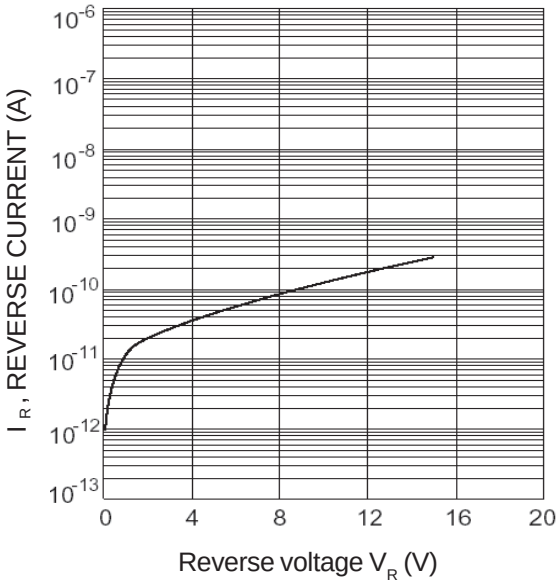


Fig.1 Reverse current Vs. Reverse voltage

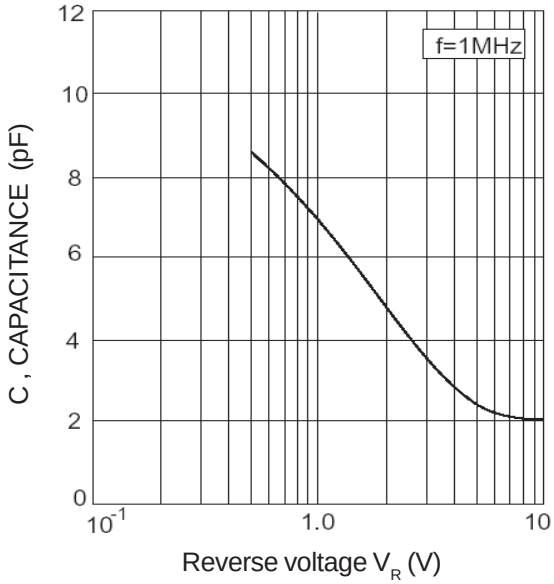


Fig.2 Capacitance Vs. Reverse voltage

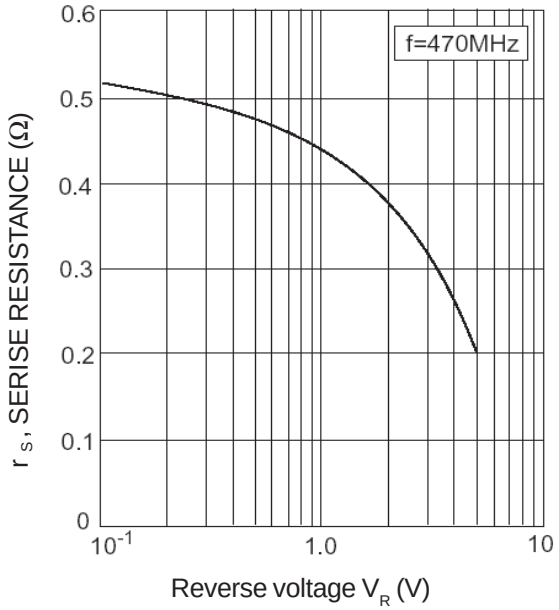


Fig.3 Series resistance Vs. Reverse voltage

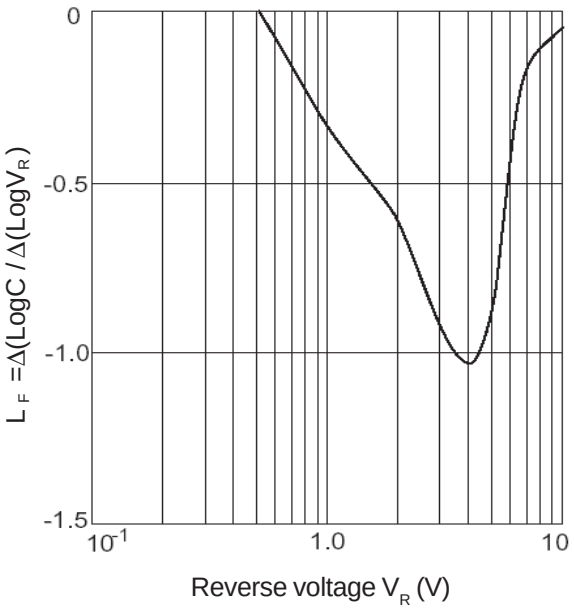


Fig.4 Linearity factor Vs. Reverse voltage