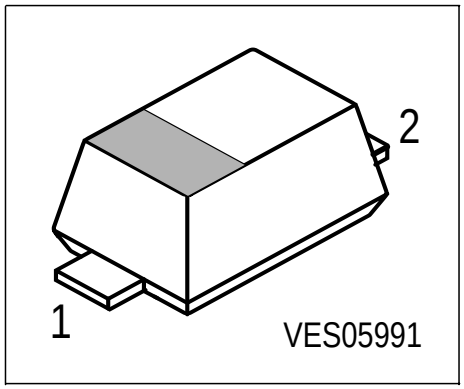
Silicon RF Switching Diode

Preliminary data

- Low loss, low capacitance PIN-diode
- Band switch for TV-tuners
- Series diode for mobile communication transmit-receiver switch



Type	Marking	Ordering Code	Pin Configuration		Package
BAR 65-02W	N	Q62702-A1216	1 = C	2 = A	SCD-80

Maximum Ratings

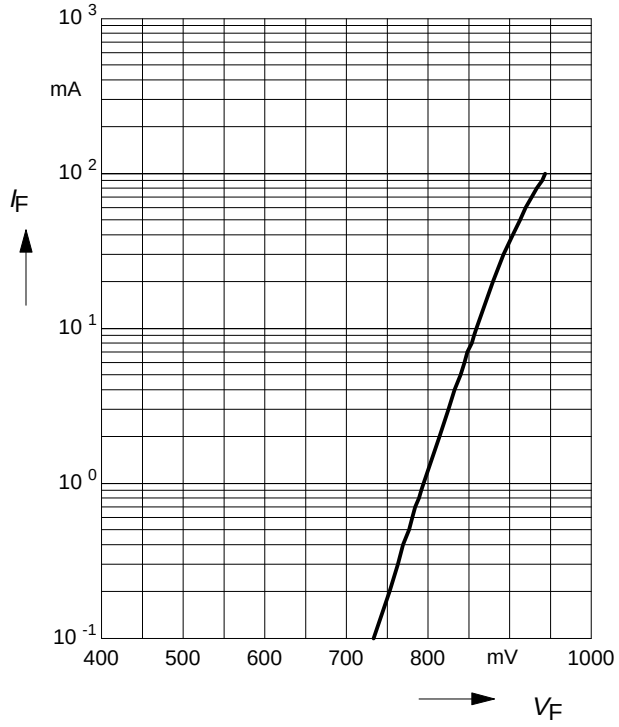
Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	30	V
Forward current	I_F	100	mA
Operating temperature range	T_{op}	- 55 ...+125	°C
Storage temperature	T_{stg}	- 55 ...+150	

Electrical Characteristics at T_A = 25°C, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current V_R = 20 V	I_R	-	-	20	nA
Forward voltage I_F = 100 mA	V_F	-	0.93	1	V
AC characteristics					
Diode capacitance	C_T				pF
V_R = 1 V, f = 1 MHz		-	0.6	0.9	
V_R = 3 V, f = 1 MHz		-	0.57	0.8	
Forward resistance	r_f				Ω
I_F = 5 mA, f = 100 MHz		-	0.65	0.95	
I_F = 10 mA, f = 100 MHz		-	0.56	0.9	
Series inductance	L_S	-	0.6	-	nH

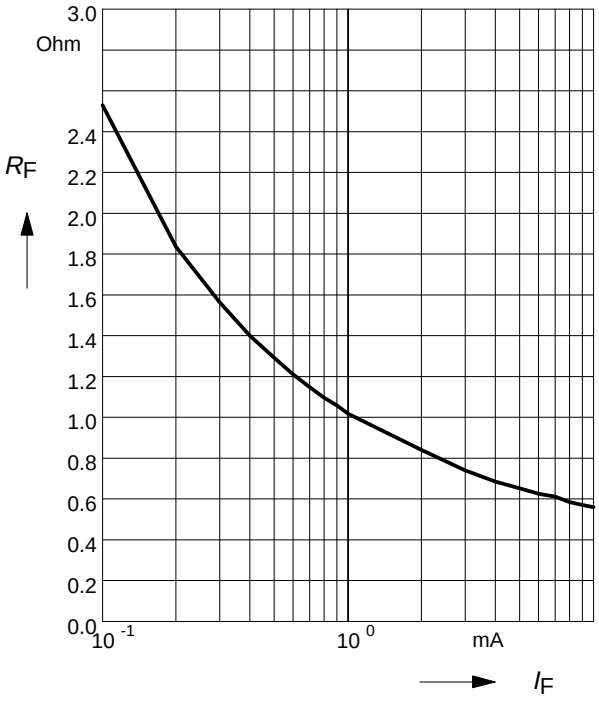
Forward current $I_F = f(V_F)$

T_A = 25°C



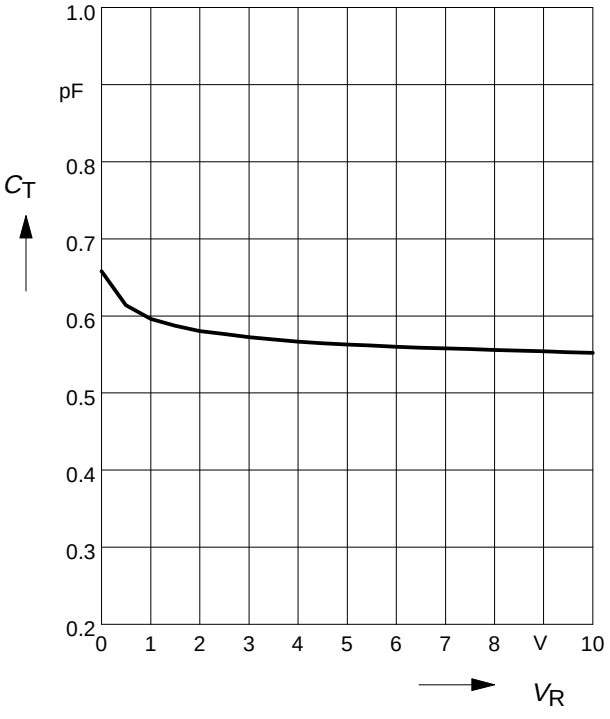
Forward resistance $r_f = f(I_F)$

f = 100MHz



Diode capacitance $C_T = f(V_R)$

f = 1MHz



Diode capacitance $C_T = f(V_R)$

f = 100MHz