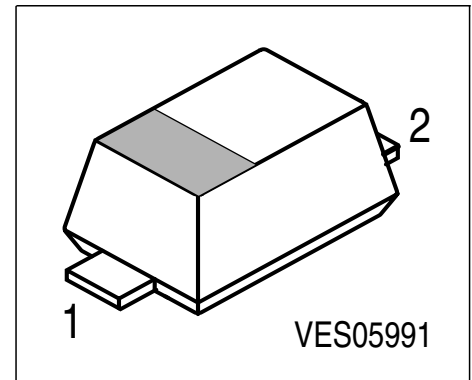


Silicon RF Switching Diode

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



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

Maximum Ratings

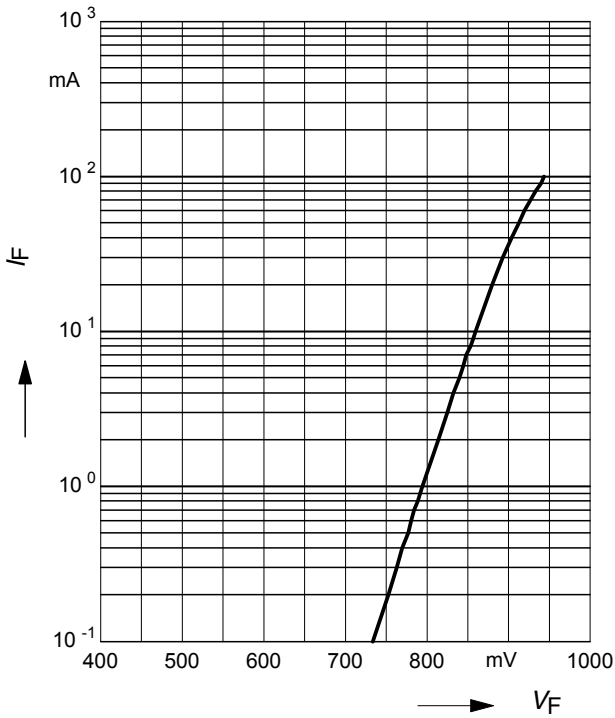
Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	30	V
Forward current	I_F	100	mA
Operating temperature range	T_{op}	-55 ... 125	°C
Storage temperature	T_{stg}	-55 ... 150	

Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current $V_R = 20\text{ V}$	I_R	-	-	20	nA
Forward voltage $I_F = 100\text{ mA}$	V_F	-	0.93	1	V
AC Characteristics					
Diode capacitance $V_R = 1\text{ V}, f = 1\text{ MHz}$ $V_R = 3\text{ V}, f = 1\text{ MHz}$	C_T	-	0.6	0.9	pF
		-	0.57	0.8	
Forward resistance $I_F = 5\text{ mA}, f = 100\text{ MHz}$ $I_F = 10\text{ mA}, f = 100\text{ MHz}$	r_f	-	0.65	0.95	Ω
		-	0.56	0.9	
Charge carrier life time $I_F = 10\text{ mA}, I_R = 6\text{ mA}, I_R = 3\text{ mA}$	τ_{rr}	-	80	-	ns
Series inductance	L_s	-	0.6	-	nH

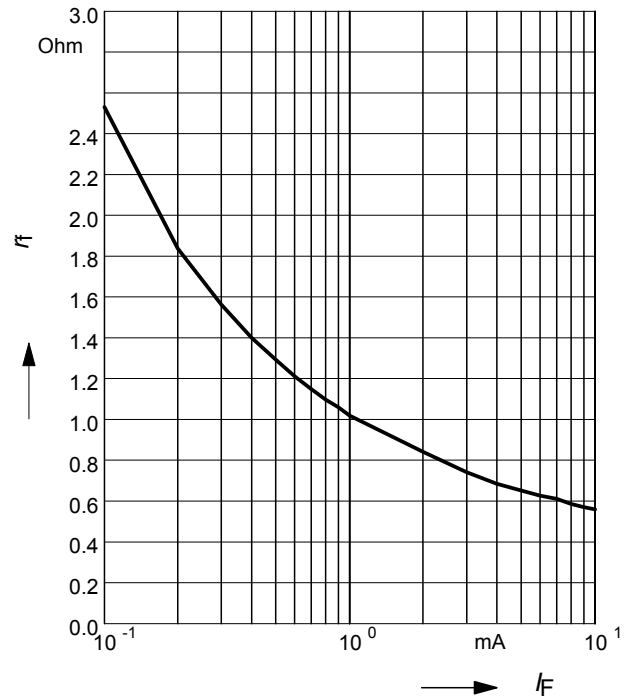
Forward current $I_F = f(V_F)$

$T_A = 25^\circ\text{C}$



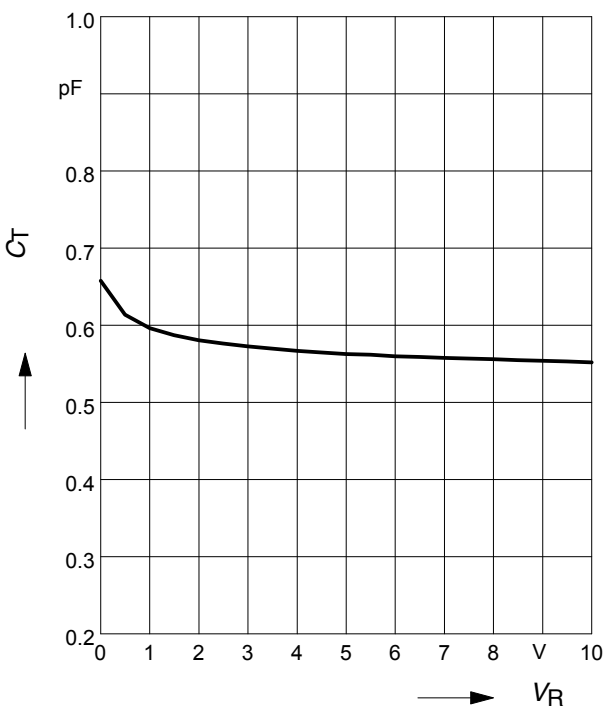
Forward resistance $r_f = f(I_F)$

$f = 100\text{MHz}$



Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



Diode capacitance $C_T = f(V_R)$

$f = 100\text{MHz}$

