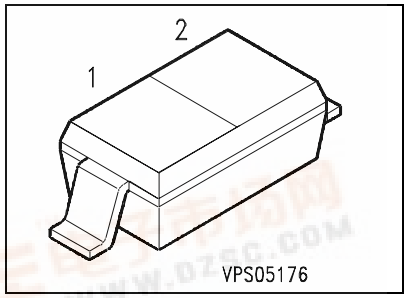
SIEMENS

BAR 64-03W

Silicon PIN Diode

- High voltage current controlled RF resistor for RF attenuator and swirches
- Freqency range above 1 MHz
- Low resistance and short carrier lifetime
- For frequencies up to 3 GHz



Type	Marking	Ordering Code (tape and reel)	Pin Configuration 1		2	Package 1)
BAR 64-03W	2	Q62702-A1045	C		A	SOD-323

Maximum Ratings per Diode

Parameter	Symbol	BAR 64-03W	Unit
Reverse voltage	V_R	200	V
Forward current	I_F	100	mA
Total Power dissipation $T_S \leq 25°C$	P_{tot}	250	mW
Junction temperature	T_j	150	°C
Operating temperature range	T_{op}	-55 +150°C	°C
Storage temperature range	T_{stg}	-55...+150°C	°C

Thermal Resistance

Junction-ambient 1)	$R_{th\ JA}$	≤ 450	K/W

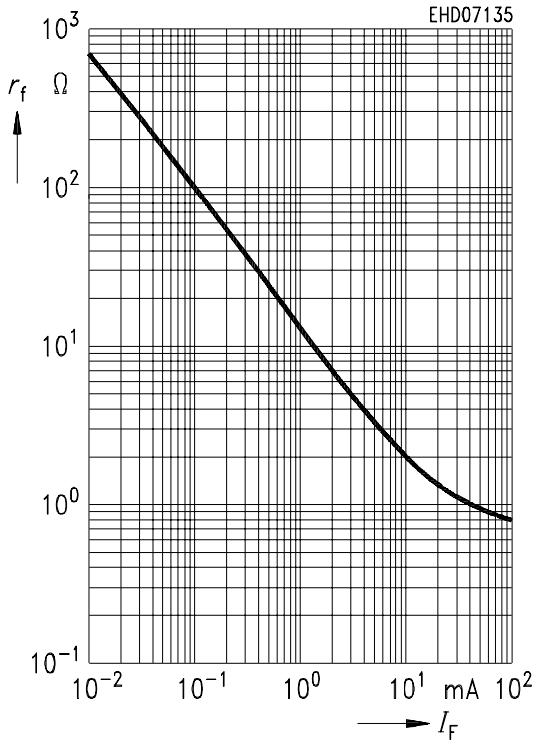
1)Package mounted on alumina 15mm x 16.7mm x 0.7mm

Electrical Characteristics

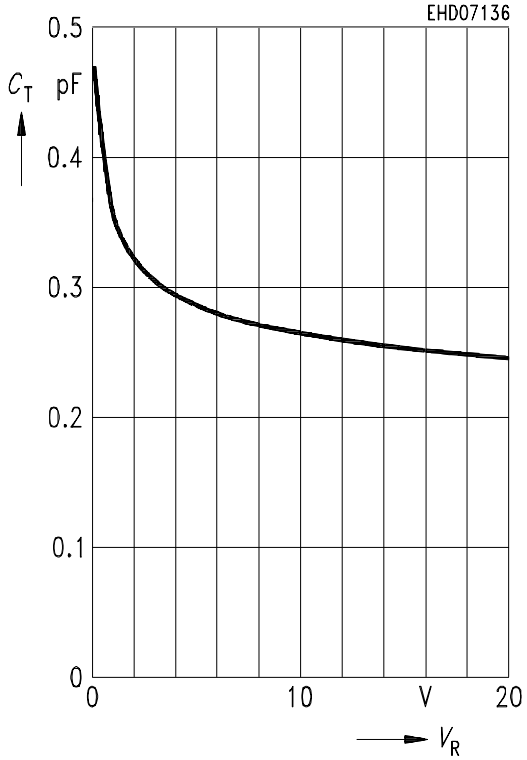
at T_A = 25 °C, unless otherwise specified.

Parameter	Symbol	Value			Unit
		min.	typ.	max.	
DC Characteristics per Diode					
Breakdown voltage I_R = 5 µA	$V_{(BR)}$	200	-	-	V
Forward voltage I_F = 50 mA	V_F	-	-	1.1	V
Diode capacitance V_R = 20 V, f = 1 MHz	C_T	-	0.23	0.35	pF
Forward resistance I_F = 1 mA, f = 100 MHz I_F = 10 mA, f = 100 MHz I_F = 100 mA, f = 100 MHz	r_f	- -- --	12.5 2.1 0.85	20 3.8 1.35	Ω
Charge carrier lifetime I_F = 10 mA, I_R = 6 mA, I_R = 3 mA	τ_L	-	1.55	-	µs
Series inductance	L_S	-	2.0	-	nH

Forward resistance $r_f = f(I_F)$
f = 100 MHz



Diode capacitance $C_T = f(V_R)$
f = 1 MHz.



Forward current $I_F = f(V_F)$