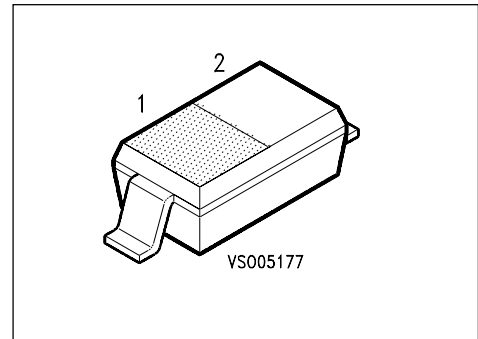


Silicon PIN Diode

BA 596

Preliminary Data

- Current-controlled RF resistor for switching and attenuating applications.
- Frequency range above 1 MHz
- Designed for low IM distortion



Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package ¹⁾
BA 596	white P	Q62702-A954		SOD-323

Maximum Ratings

Parameter	Symbol	Values	Unit
Reverse voltage	V_R	50	V
Forward current	I_F	50	mA
Operating temperature range	T_{op}	- 55 ... + 125	°C
Storage temperature range	T_{stg}	- 55 ... + 150	

Thermal Resistance

Junction - ambient	$R_{th JA}$	≤ 450	K/W
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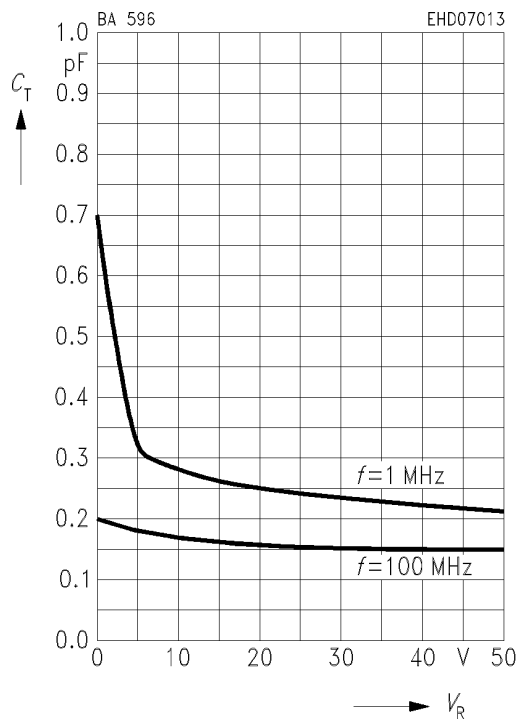
¹⁾ For detailed information see chapter Package Outlines.

Electrical Characteristics

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Forward voltage $I_F = 50\text{ mA}$	V_F	–	–	1.15	V
Reverse current $V_R = 50\text{ V}$	I_R	–	–	50	nA
Diode capacitance $f = 1\text{ MHz}, V_R = 50\text{ V}$ $f = 100\text{ MHz}, V_R = 0\text{ V}$	C_T	–	0.23 0.2	0.35 –	pF
Forward resistance $f = 100\text{ MHz}$ $I_F = 10\text{ }\mu\text{A}$ $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$	r_f	–	2400 58 7.8	– – 10	Ω
Zero bias conductance $f = 100\text{ MHz}, V_R = 0\text{ V}$	g_p	–	40	–	μS
Series inductance	L_s	–	2	–	nH

Diode capacitance $C_T = f(V_R)$
 $f = 1\text{ MHz} / f = 100\text{ MHz}$



Forward resistance $r_f = f(I_F)$
 $f = 100\text{ MHz}$

