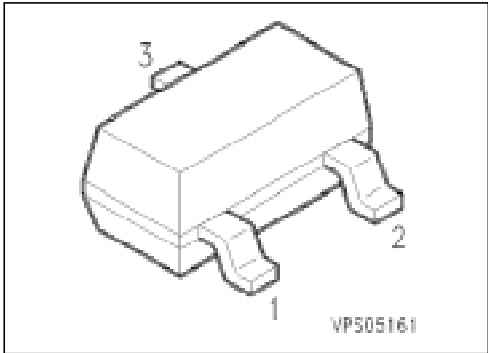


Silicon PIN Diode

BA 885

- Current-controlled RF resistor for switching and attenuating applications
- Frequency range 1 MHz ... 2 GHz
- Especially useful as antenna switch in TV-sat tuners



Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package ¹⁾
BA 885	PA	Q62702-A608		SOT-23

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 ²⁾	$R_{th JA}$	≤ 450	K/W
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¹⁾ For detailed information see chapter Package Outlines.

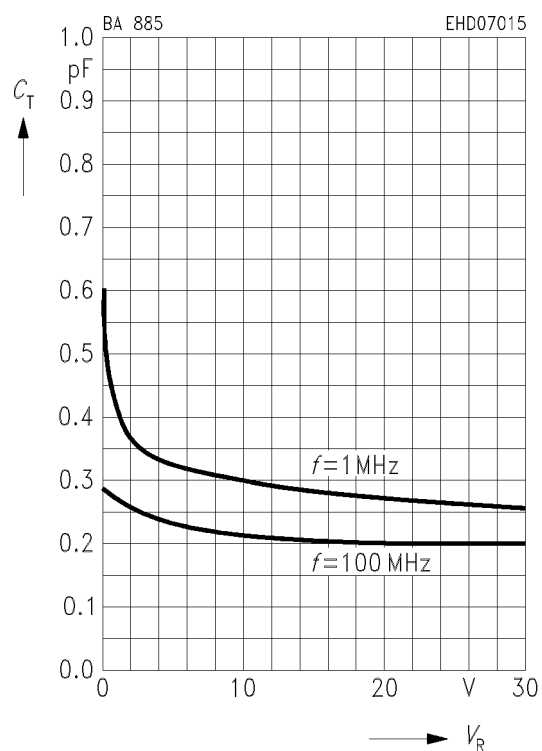
²⁾ Package mounted on alumina 15 mm × 16.7 mm × 0.7 mm.

Electrical Characteristics

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Forward voltage $I_F = 50\text{ mA}$	V_F	—	—	1.1	V
Reverse current $V_R = 30\text{ V}$	I_R	—	—	50	nA
Diode capacitance $V_R = 10\text{ V}, f = 1\text{ MHz}$ $V_R = 0\text{ V}, f = 100\text{ MHz}$	C_T	— —	0.28 0.23	0.6 0.4	pF
Forward resistance $f = 100\text{ MHz}$ $I_F = 1.5\text{ mA}$ $I_F = 10\text{ mA}$	r_f	— —	22 5	40 7	Ω
Zero bias conductance $V_R = 0\text{ V}, f = 100\text{ MHz}$	g_p	—	70	—	μS
Series inductance	L_s	—	2	—	nH

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



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

