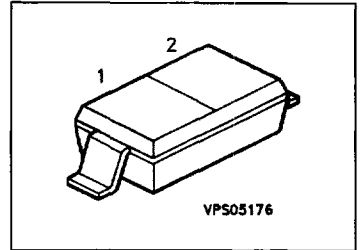


## Silicon PIN Diode

**BA 585**

- Current-controlled RF resistor for switching and attenuating applications.
- Frequency range 1 MHz ... 2 GHz



Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package <sup>1)</sup>
BA 585	white R	Q62702-A859		SOD-123

### Maximum Ratings

Parameter	Symbol	Values	Unit
Reverse voltage	$V_R$	50	V
Forward current	$I_F$	50	mA
Operation 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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<sup>1)</sup> For detailed information see chapter Package Outlines.

## 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 $f = 1\text{ MHz}, V_R = 10\text{ V}$ $f = 100\text{ MHz}, V_R = 0\text{ V}$	$C_T$	–	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	$\Omega$
Zero bias conductance $f = 100\text{ MHz}, V_R = 0\text{ V}$	$g_p$	–	70	–	$\mu\text{S}$
Series inductance	$L_s$	–	2.8	–	nH

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

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

