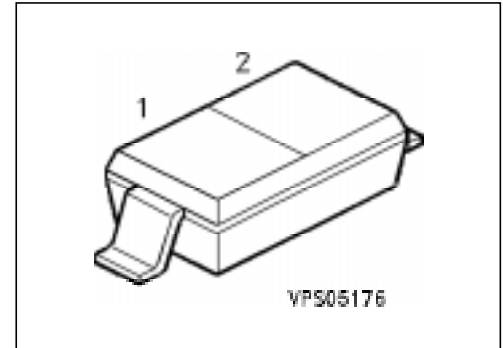


## Silicon RF Switching Diode

BA 582

- For low-loss VHF band switching in TV/VTR tuners



Type	Marking	Ordering Code	Pin Configuration	Package <sup>1)</sup>
BA 582	blue S	Q62702-A829		SOD-123

### Maximum Ratings

Parameter	Symbol	Values	Unit
Reverse voltage	$V_R$	35	V
Forward current, $T_A \leq 60 \text{ }^\circ\text{C}$	$I_F$	100	mA
Operation temperature range	$T_{op}$	- 55 ... + 125	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	- 55 ... + 150	

### Thermal Resistance

Junction - ambient	$R_{th,JA}$	$\leq 600$	K/W
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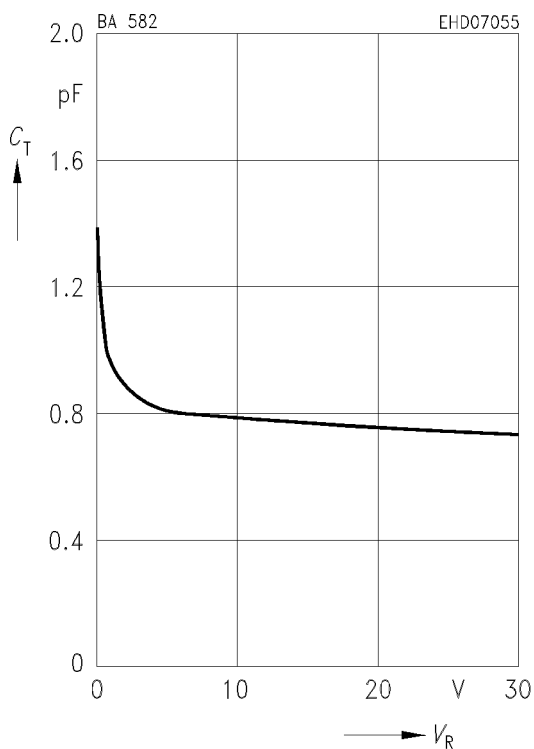
<sup>1)</sup> For detailed information see chapter Package Outlines.

## Electrical Characteristics

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Forward voltage $I_F = 100\text{ mA}$	$V_F$	–	–	1	V
Reverse current $V_R = 20\text{ V}$	$I_R$	–	–	20	nA
Diode capacitance $f = 1\text{ MHz}$ $V_R = 1\text{ V}$ $V_R = 3\text{ V}$	$C_T$	– 0.6	0.92 0.85	1.4 1.1	pF
Forward resistance $f = 100\text{ MHz}$ $I_F = 3\text{ mA}$ $I_F = 10\text{ mA}$	$r_f$	– –	0.45 0.38	0.7 0.5	$\Omega$
Reverse resistance $V_R = 1\text{ V}, f = 100\text{ MHz}$	$1/g_p$	–	100	–	k $\Omega$
Series inductance	$L_s$	–	2.8	–	nH

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



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

