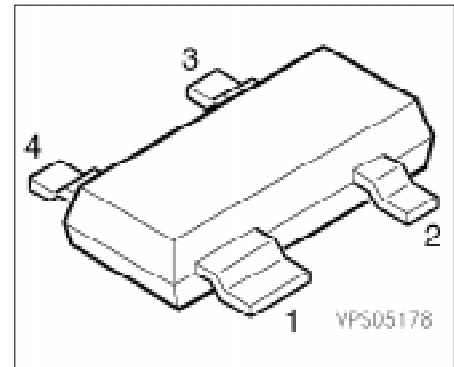


Features

- High barrier diode for balanced mixers, phase detectors and modulators



ESD: ElectroStatic Discharge sensitive device, observe handling precautions!

Type	Marking	Ordering Code (taped & reel)	Pin Configuration	Package ¹⁾
BAT 114-099	S7	Q62702-A1017		SOT-143

¹⁾ Dimensions see chapter **Package Outlines**

Maximum Ratings

(per diode)

Parameter	Symbol	Limit Values	Unit
Reverse voltage	V_R	4	V
Forward current	I_F	90	mA
Operation temperature	T_{op}	- 55 to + 150	°C
Storage temperature	T_{stg}	- 55 to + 150	°C
Power dissipation, $T_S \leq 70$ °C	P_{tot}	100	mW

Thermal Resistance

(per diode)

Parameter	Symbol	Limit Values	Unit
Junction to soldering point	R_{thJS}	≤ 780	K/W
Junction to ambient ¹⁾	R_{thJA}	≤ 1020	K/W

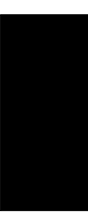
¹⁾ Mounted on alumina 15 mm × 16.7 mm to 0.7 mm

Electrical Characteristics

(per diode; $T_A = 25\text{ °C}$)

Parameter	Symbol	Limit Values			Unit
		min.	typ.	max.	
Breakdown voltage $I_R = 5\text{ }\mu\text{A}$	V_{BR}	4	–	–	V
Forward voltage $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$	V_F	– –	0.6 0.7	0.7 0.8	V
Forward voltage matching ¹⁾ $I_F = 10\text{ mA}$	ΔV_F	–	–	10	mV
Diode capacitance $V_R = 0\text{ V}, f = 1\text{ MHz}$	C_T	–	0.25	0.5	pF
Forward resistance $I_F = 10\text{ mA} / 50\text{ mA}$	R_F	–	5.5	–	Ω

¹⁾ ΔV_F is difference between lowest and highest V_F in component.



Forward Current $I_F = f(V_F)$

