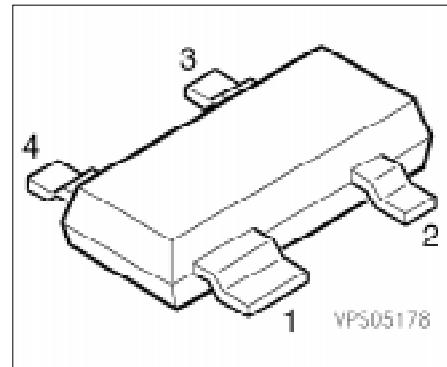


Features

- 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	 EHA07011	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; $T_A = 25^\circ\text{C}$)

Parameter	Symbol	Limit Values			Unit
		min.	typ.	max.	
Breakdown voltage $I_R = 5 \mu\text{A}$	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 $I_F = f(V_F)$ 