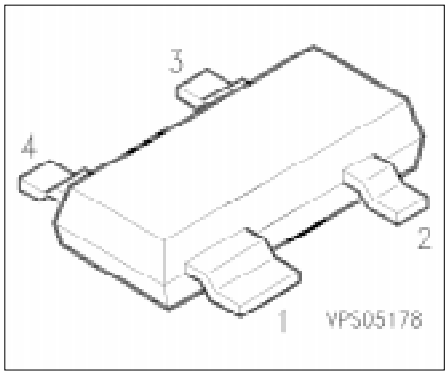
SIEMENS

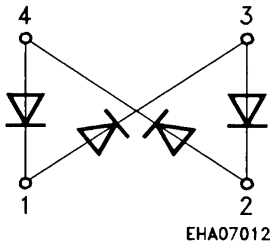
Silicon Crossover Ring Quad Schottky Diode — BAT 114-099R

Features

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



ESD: Electro**S**tatic **D**ischarge sensitive device, observe handling precautions!

Type	Marking	Ordering Code (taped)	Pin Configuration	Package[1)]
BAT 114-099R	14s	Q62702-A1006		SOT-143

1) Dimensions see chapter **Package Outlines**

Maximum Ratings
(per diode)

Parameter	Symbol	Limit Values	Unit
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 °C)

Parameter	Symbol	Limit Values			Unit
		min.	typ.	max.	
Forward voltage	V_F				V
I_F = 1 mA		–	0.58	0.7	
I_F = 10 mA		–	0.68	0.78	
Forward voltage matching[1)]	ΔV_F				mV
I_F = 10 mA		–	–	20	
Diode capacitance	C_T				pF
V_R = 0 V, f = 1 MHz		–	0.25	–	
Forward resistance	R_F				Ω
I_F = 10 mA / 50 mA		–	5.5	–	

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

Forward Current $I_F = f(V_F)$

