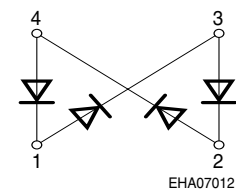
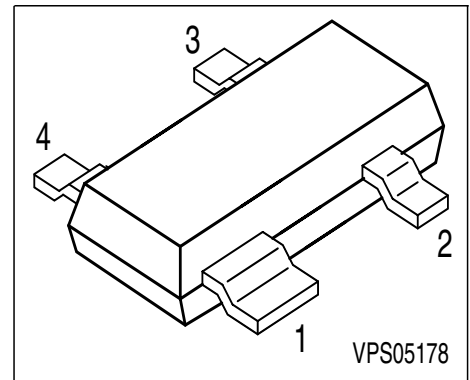


Silicon Crossover Ring Quad Schottky Diode

- Medium barrier diode for double balanced mixer, phase detectors and modulators



ESD: Electrostatic discharge sensitive device, observe handling precaution!

Type	Marking	Pin Configuration				Package
BAT 14-099R	S8s	1=A1/C4	2=C2/A3	3=C1/A2	4=C3/A4	SOT-143

Maximum Ratings

Parameter	Symbol	Value	Unit
Forward current	I_F	90	mA
Total power dissipation, $T_S \leq 70\text{ °C}$	P_{tot}	100	mW
Junction temperature	T_j	150	°C
Operating temperature range	T_{op}	-55 ... 150	°C
Storage temperature	T_{stg}	-55 ... 150	°C

Thermal Resistance

Junction - ambient ¹⁾	R_{thJA}	≤ 1020	K/W
Junction - soldering point	R_{thJS}	≤ 780	

1) Package mounted on alumina 15mm x 17.6mm x 0.7mm)

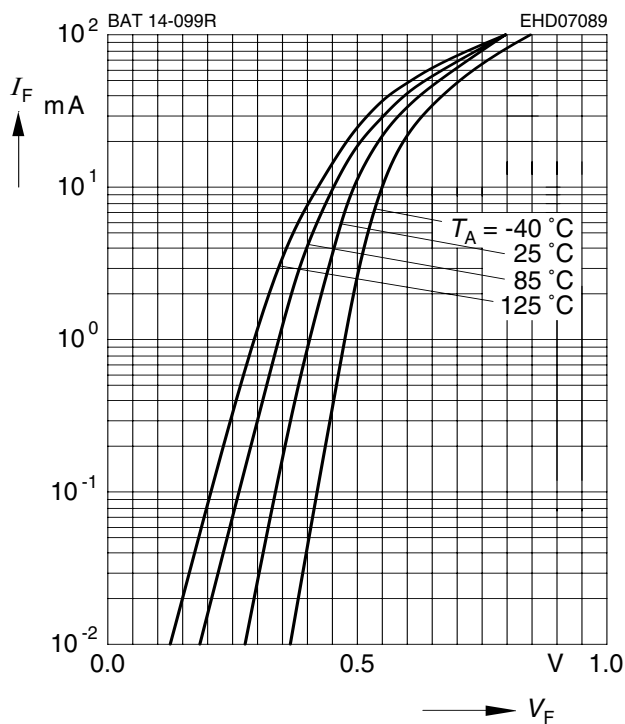
Electrical Characteristics at $T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics (per diode)					
Forward voltage $I_F = 1\text{ mA}$ $I_F = 10$	V_F	- -	0.4 0.48	- -	V
Forward voltage matching ¹⁾ $I_F = 10\text{ mA}$	ΔV_F	-	-	20	mV
AC characteristics (per diode)					
Diode capacitance $V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_T	-	0.38	-	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

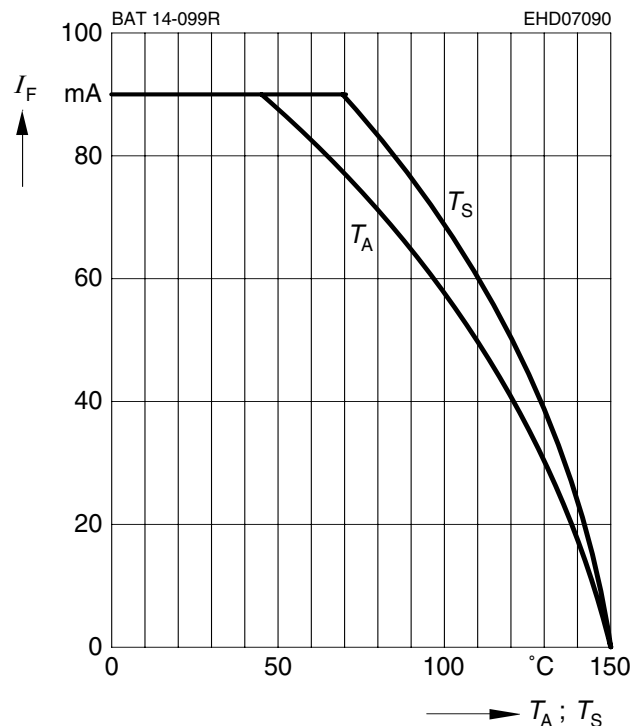
Forward current $I_F = f(V_F)$

$T_A = \text{Parameter}$



Forward current $I_F = f(T_A^*; T_S)$

* Package mounted on alumina





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