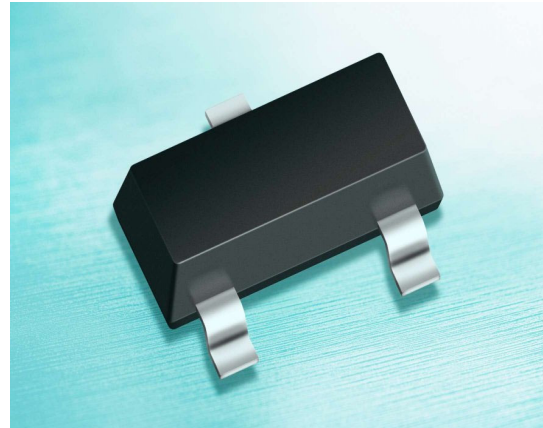
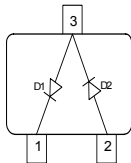


Silicon RF Schottky Diodes

- Low barrier type for mixer applications up to 12 GHz, phase detectors and modulators
- Pb-free (RoHS compliant) package


BAT15-04R


ESD (Electrostatic discharge) sensitive device, observe handling precaution!

Type	Package	Configuration	L_S (nH)	Marking
BAT15-04R*	SOT 23	reverse series pair	1.5	4R

*preliminary

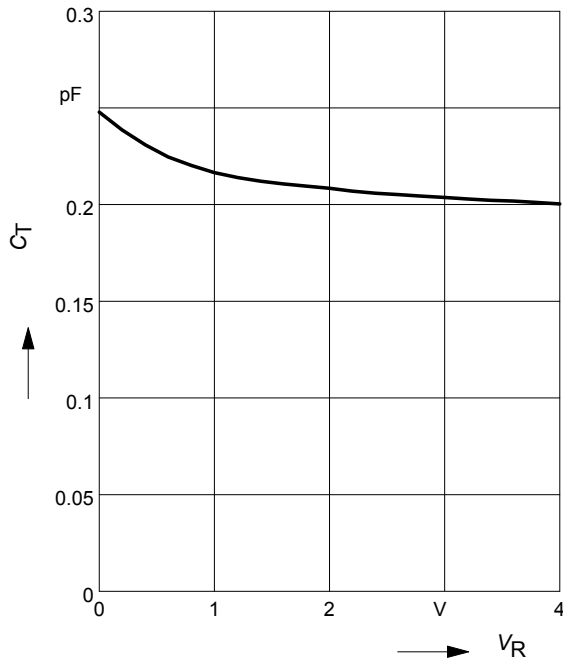
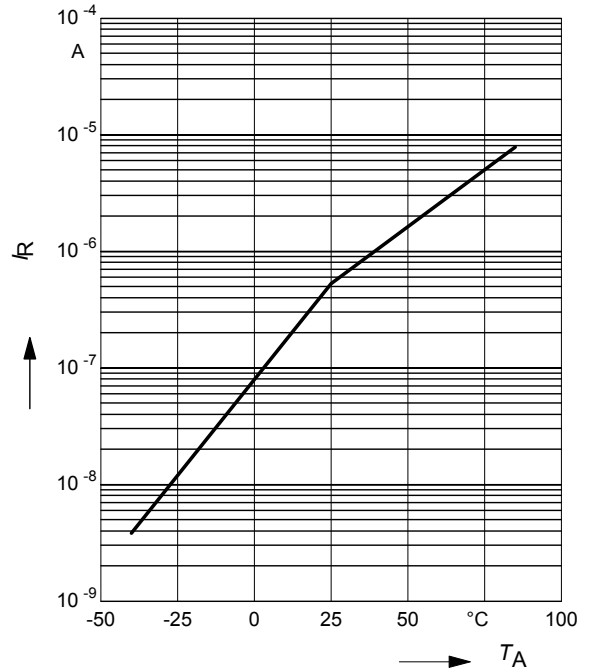
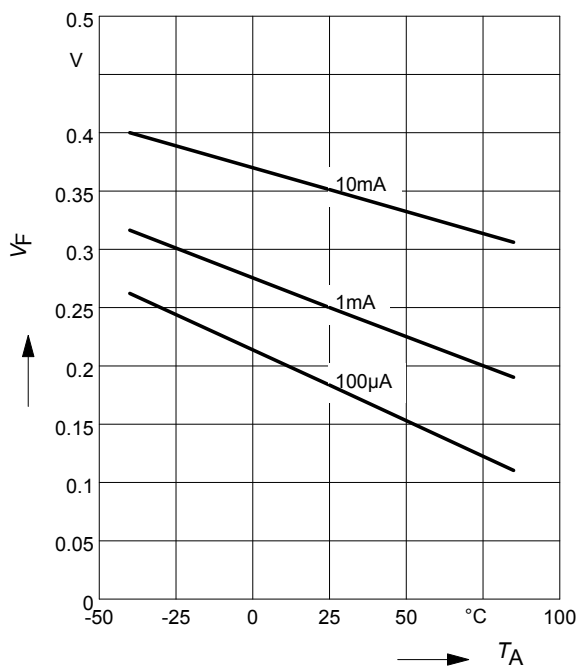
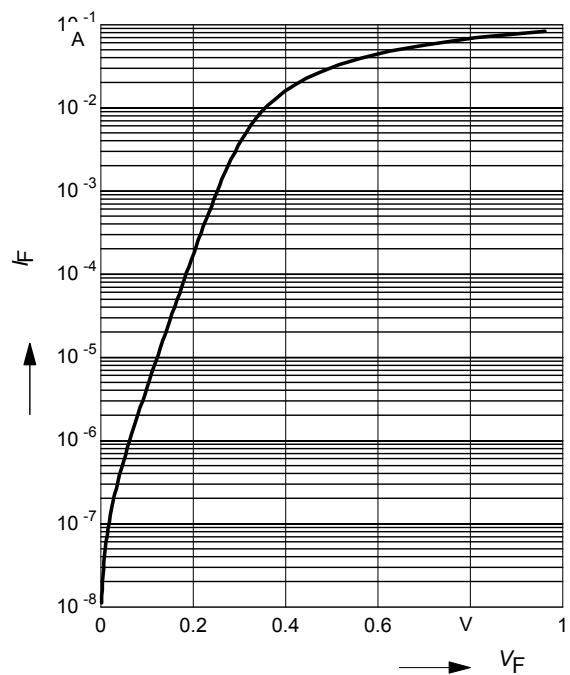
Maximum Ratings at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	4	V
Forward current	I_F	110	mA
Junction temperature	T_j	150	°C
Operating temperature range	T_{op}	-55 ... 150	
Storage temperature	T_{stg}	-65 ... 150	

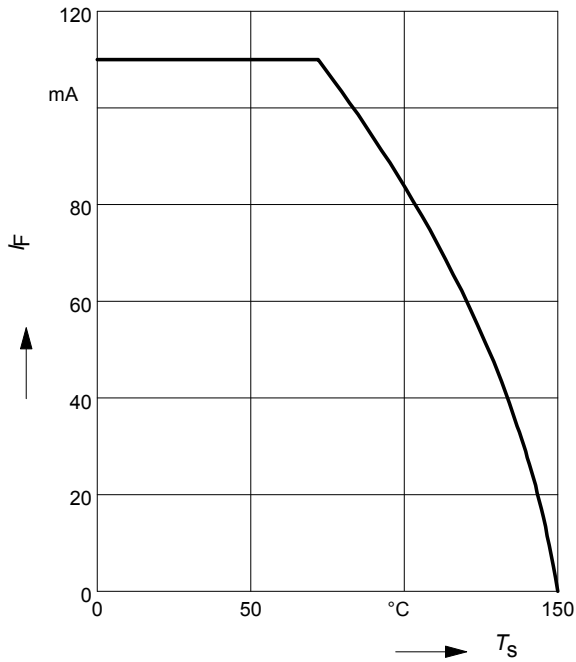
Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Breakdown voltage $I_{(BR)} = 10 \mu\text{A}$	$V_{(BR)}$	4	-	-	V
Forward voltage $I_F = 1 \text{ mA}$	V_F	0.2	0.25	0.3	
Forward voltage matching ¹⁾ $I_F = 1 \text{ mA}$	ΔV_F	-	-	10	mV
AC Characteristics					
Diode capacitance $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	C_T	-	0.25	-	pF
Differential forward resistance $I_F = 5 \text{ mA}$	R_F	-	-	18	Ω

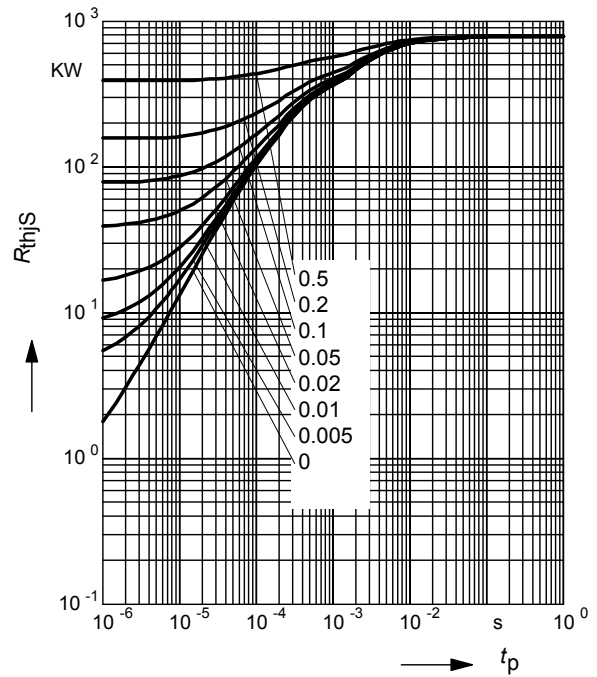
¹⁾ ΔV_F is the difference between lowest and highest V_F in a multiple diode component.

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

Reverse current $I_R = f(V_R)$
 $T_A = \text{Parameter}$

Forward Voltage $V_F = f(T_A)$
 $I_F = \text{Parameter}$

Forward current $I_F = f(V_F)$
 $T_A = 25^\circ\text{C}$


Forward current $I_F = f(T_S)$

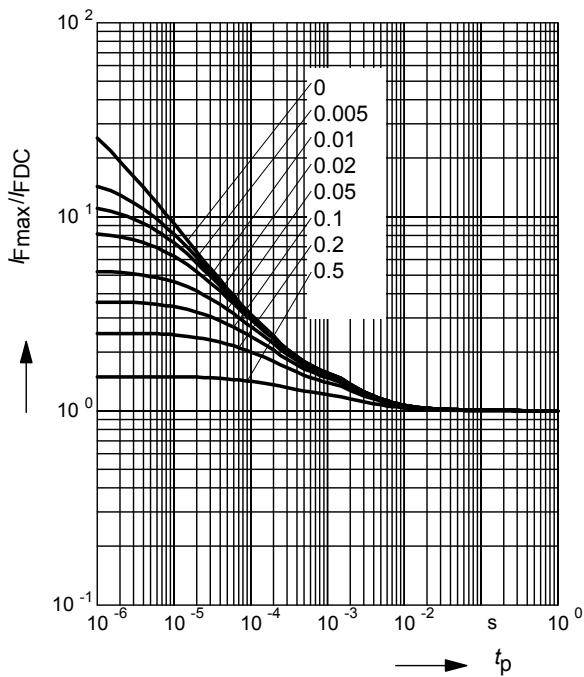


Permissible Puls Load $R_{thJS} = f(t_p)$

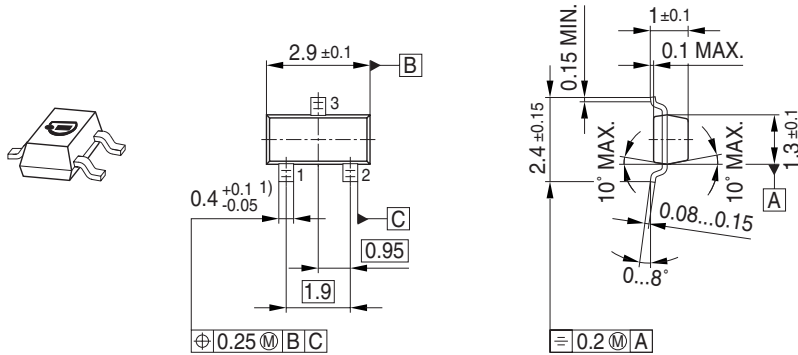


Permissible Pulse Load

$I_{Fmax} / I_{FDC} = f(t_p)$

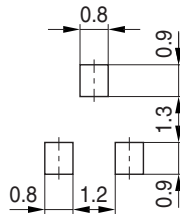


Package Outline

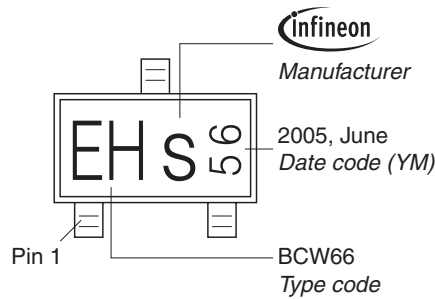


1) Lead width can be 0.6 max. in dambar area

Foot Print

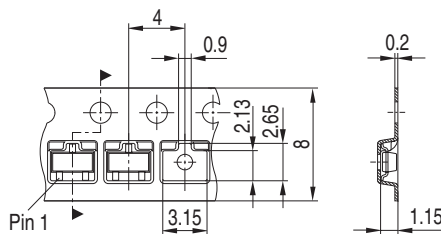


Marking Layout (Example)



Standard Packing

Reel ϕ 180 mm = 3.000 Pieces/Reel
 Reel ϕ 330 mm = 10.000 Pieces/Reel



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