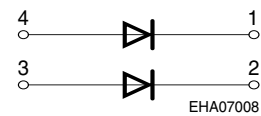
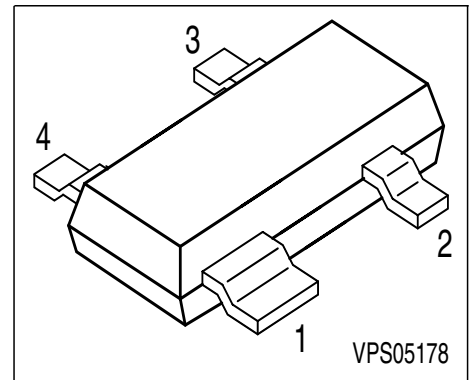


Silicon Schottky Diode

- For mixer applications in the VHF / UHF range
- For high-speed switching applications



Type	Marking	Pin Configuration				Package
BAT 17-07	57s	1 = C1	2 = C2	3 = A2	4 = A1	SOT-143

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	4	V
Forward current	I_F	130	mA
Total power dissipation, $T_S \leq 60^\circ\text{C}$	P_{tot}	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Operating temperature range	T_{op}	-55 ... 150	
Storage temperature	T_{stg}	-55 ... 150	

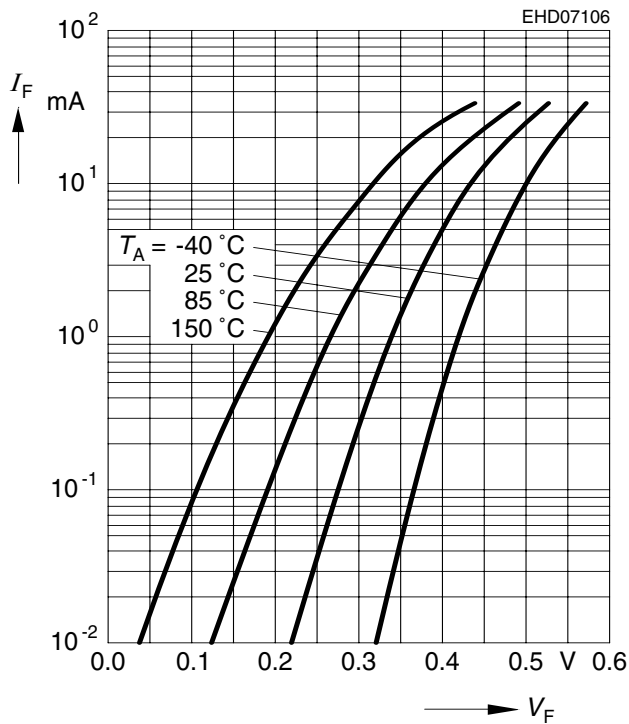
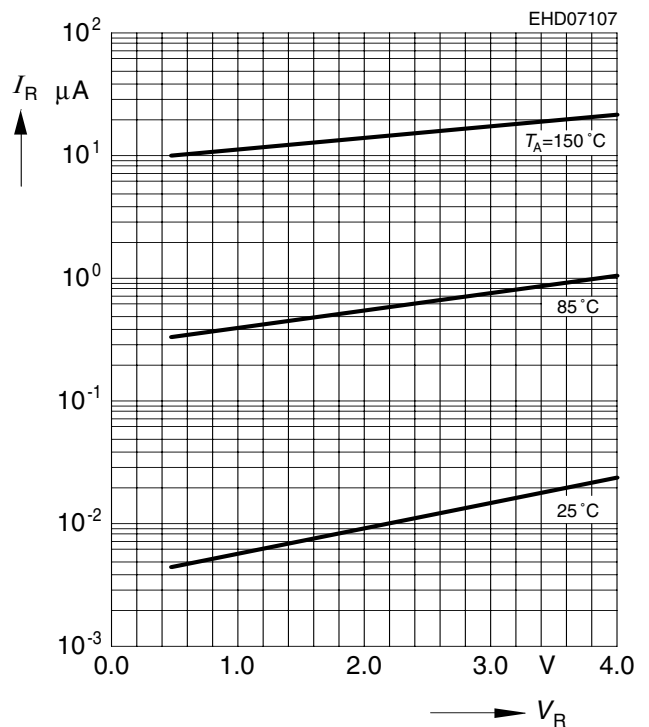
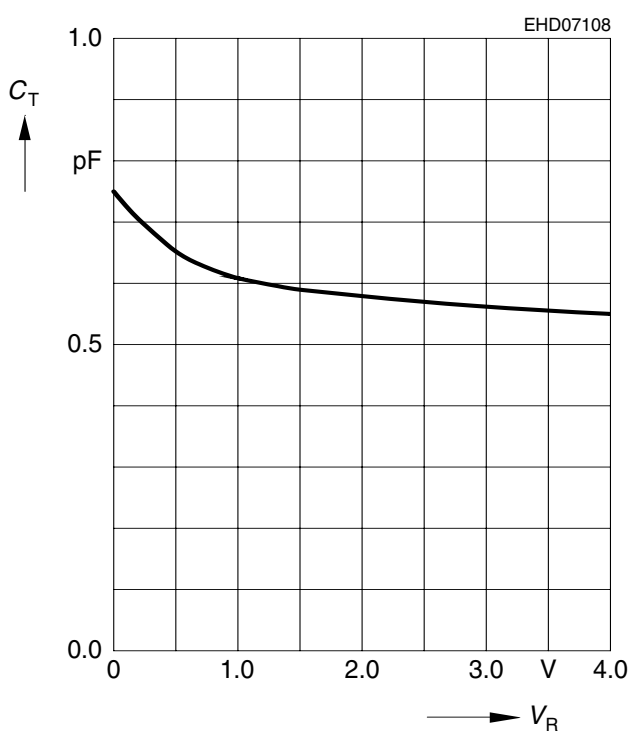
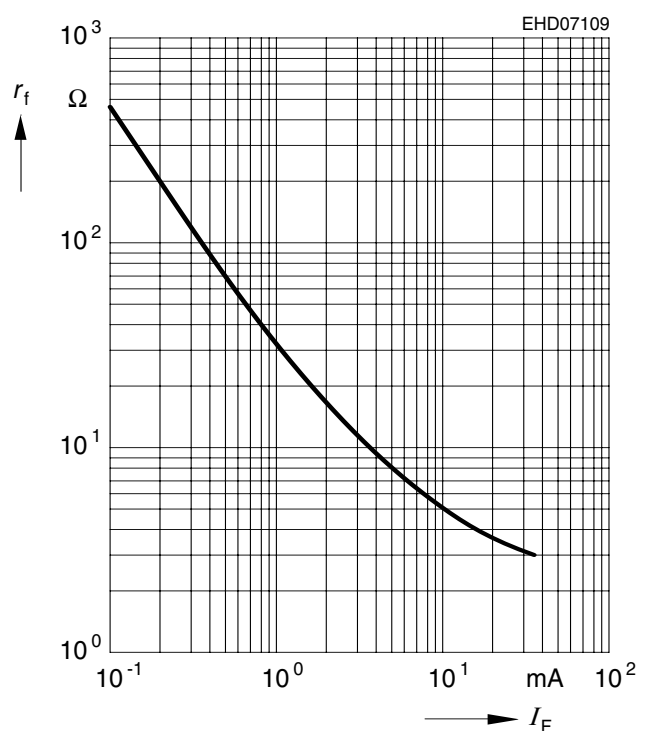
Thermal Resistance

Junction - ambient ¹⁾	R_{thJA}	≤ 750	K/W
Junction - soldering point	R_{thJS}	≤ 590	

1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 1cm² Cu

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Breakdown voltage $I_{(BR)} = 10\text{ }\mu\text{A}$	$V_{(BR)}$	4	-	-	V
Reverse current $V_R = 3\text{ V}$ $V_R = 4\text{ V}$	I_R	- -	- -	0.25 10	μA
Reverse current $V_R = 3\text{ V}, T_A = 60\text{ }^{\circ}\text{C}$	I_R	-	-	1.25	
Forward voltage $I_F = 0.1\text{ mA}$ $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$	V_F	200 250 350	275 340 425	350 450 600	mV
AC characteristics					
Diode capacitance $V_R = 0\text{ V}, f = 1\text{ MHz}$	C_T	-	0.75	1	pF
Differential forward resistance $I_F = 5\text{ mA}, f = 10\text{ kHz}$	r_f	-	8	15	Ω

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

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

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

Differential forward resistance $r_f = f(I_F)$
 $f = 10\text{kHz}$


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

* Package mounted on epoxy

